National Park Service
U.S. Department of the Interior

Historic Architecture Program
Northeast Region

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FIRE ISLAND LIGHTHOUSE AND KEEPER'S DWELLING

Fire Island National Seashore
Patchogue, New York

PUBLIC DOCUMENTS
DEPOSITORY ITEM

Historic Structure Report
Volume 3

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FIRE ISLAND LIGHTHOUSE AND KEEPER'S DWELLING

VOLUME III

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C97. March 2, 1891. Light-House Board Journals. Approval to apply asphalt paint and change color of lighthouse at Fire Island. 1 page 758

C98. March 7, 1891. Letter from LH Board to Engineer. Official approval to the Engineer to undertake work specified in February 16, 1891 letter. 1 page 759

C99. August 6, 1891. Notice to Mariners. Notice of Change in Color of the Tower at-Fire Island Light Station to occur during the month of August. 1 page 760

C100. August 29, 1891. Authorization for 300 Galls. Asphaltic Slag paint for painting tower. 1 page 761

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C102. May 17, 1894. Letter from LH Board to The Secretary of the Treasury. Recommendation to install an electric light at Fire Island. 2 pages 763

C103. May 3, 1897. Light-House Board Journals. Seeking appropriate location to place electric light, not to be installed at Fire Island. 1 page 765

C104. September 9, 1899. Correspondence of the Light-House Establishment. Notice of cost for material and labor for repairs to dwelling. 1 page 766

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C105. 1900's. Data extracted from unpublished monthly and annual reports of the Inspector and Engineer to the Light-House Board. 4 pages 767

C106. March 5, 1901. Letter from Engineer to LH Board. Reference to an article in *Engineering Record* for a new coating for the Lighthouse at Grande Pointe au Sable, 9th/District. Engineer requests copy of plans and specifications as Fire Island is plagued with similar problems. 1 page 771

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C113. February 11, 1908. Letter from Asst. Engineer to LH Board. Candle power of the old and new lights at Fire Island. 1 page 787

C114. June 1908. Miscellaneous letters regarding increasing the intensity of Fire Island light. 11 pages 788

C115. October 8, 1909. Letter from Captain to Major, 3rd/Dist. Coal shed needs repairs and-kitchen pumps and sinks furnished to assistant keeper's. 1 page 799

C116. September 23, 1909. Letter from Inspector to Keeper Fire Island. Annual Property Return Comments. 1 page 800

C117. February 15, 1909. Requisition for extra supplies. 1 page 801

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C118. January 15, 1910. Requisition for extra supplies. 1 page 802

C119. May 8, 1911. Letter from Inspector to Commissioner of Lighthouses. Recommendation of annual allowance for heating the Watch Room at Fire Island Light Station. 1 page 803

C120. May 29, 1911. Proposed work and cost estimate for Fire Island Light Station. Repairs to dwelling, including reshingling the roof. 2 pages 804

C121. April 9, 1912. Letter from Asst. Superintendent to Inspector. Report on the exterior condition of the Fire Island Lighthouse tower. 1 page 806

C122. April 25, 1912, May 8, 1912, and May 29, 1912. Proposed work and cost estimate for Fire Island Light Station. Installation of reinforcing bands and protective coating on tower. 3 pages 807

C123. July 12, 1912 Letter from Keeper Fire Island to Inspector. Request for additional mason and two laborers. 1 page 810

C124. August 7, 1912. Letter from Inspector to Keeper Fire Island. Necessity of expediting work. 1 page 811

C125. September 11, 1912. Progress Report of protective coating work from Keeper Fire Island to Inspector. 2 pages 812

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C128. October 31, 1912. Letter from Keeper Fire Island to Inspector. Installing bird guard. 1 page 816

C129. November 9, 1912. Letter from Keeper Fire Island to Inspector. Removal of staging. 1 page 817

C130. November 15, 1912. Letter from Keeper Fire Island to Inspector. Removal of 16 iron stanchions from tower gallery. 1 page 818

C131. December 12, 1912. Statement that cost of repairs to Fire Island Light Station exceeded authorized amount due to greater difficulty associated with the protective coating work on the tower. 1 page 819

C132. November 29, 1913-to May 11, 1914. Miscellaneous letters relating to the protective coating applied to the lighthouse tower at Fire Island Light Station. 16 pages 820

C133. June 12, 1915. Article sent to Mrs. R.J. Tracy of Patchogue from the Light-House Board. Historical summary of the Fire Island Lighthouse. 2 pages 836

C134. February 25, 1916. Letter from The Secretary of the Navy to The Secretary of Commerce. Placing underground all overhead wires. 1 page 838

C135. August 30, 1918. Letter from Keeper Fire Island to Supt. of Lighthouses. Report of damage and repairs made to tower as a result of lightning striking pinnacle. 1 page 839

1920's

C136. August 1927. Newspaper article, "Lighthouse Baby is Born on Beach." 2 pages 840

C137. March 23, 1929. Proposed work and cost estimate for Fire Island Light Station. Provide hot water heating systems for quarters of three keepers. Specifications included. 8 pages 842

C138. April 30, 1929. Fire at Fire Island State Park. Oil House demolished. 1 page 850

C139. June 20 and July 1, 1929. Miscellaneous correspondence for increased candle power of the Fire Island Lightship and Lighthouse. 3 pages 851

C140. November 27, 1929. Letter from The Surgeon General to Commissioner of Lighthouses. Reporting on unsanitary water conditions at Fire Island. 1 page 854

C141. December 19, 1929. In-house report on water conditions at Fire Island Light Station. 1 page 855

1930's

C142. January 2, 1930. Letter from Commissioner of Lighthouses to The Surgeon General. Advising that the unsanitary water conditions will be corrected. 1 page 856

C143. April 3, 1931. Proposed work and cost estimate for Fire Island Light Station. Make alterations to dwelling; install running water supply system; install sanitary sewage disposal system. Specifications included. 11 pages 857

C144. July 18, 1932. Letter from Chief Constructing Engineer to Supt. of LightHouses. Length of flash of the modified Shinnecock lens to be installed at Fire Island. 1 page 868

C145. July 22, 1932. Proposed work for Fire Island Light Station. Replace the present lens and apparatus with a more efficient lens. 1 page 869

C146. October 27, 1933. Letter from The Franklin Institute, Philadelphia, to the Deputy Commissioner of Lighthouses. Seeking data on the Fire Island Fresnel lens that was transferred to the Institute. 1 page 870

C147. May 26, 1937. Letter from The Secretary of The Navy to The Secretary of Commerce. Regarding wireless station. 3 pages 871

C148. January 13, 1938. Proposed work and cost estimate for Fire Island Light Station. Renew roof covering and replaster halls and two rooms. Specifications included. 11 pages 874

C149. June 7, 1938. Proposed work and cost estimate for Fire Island Light Station. Change light from 10V to electric incandescent. Miscellaneous correspondence related to the change included. 13 pages 885

C150. January 18, 1939. Proposed work and cost estimate for Fire Island Light Station. Drive well 200' and install electric pump. Specifications included. 6 pages 898

C151. 1939. Historical Summary of Fire Island Lighthouse, that appeared in *Guide to Historically Famous Lighthouses in the United States*. Prepared by the U.S. Coast Guard. 1 page 904

1940's

No Data

1950's

No Data

1960's

C152. January 1969. Request to modernize equipment, relocate and automate Fire Island Light. 2 pages 905

1970's

C153. December 12, 1973. Notice to Mariners that Fire Island Light will be relocated to the water tower at Robert Moses State Park. 1 page 907

C154. February 11, 1974. Correspondence relating to relocating the Fire Island Light. 1 page 908

C155. August 4, 1975. Survey of the Coast Guard Annex Fire Island Light Station. 7 pages 909

C156. October 21, 1975. Report of conditions and corrective actions required at the Fire Island Lighthouse. 2 pages 916

C157. October 24, 1975. Operations order for Fire Island Light Station. 2 pages 918

C158. News Release defining agreement between the U.S. Coast Guard and the National Park Service. 1 page 920

1980's

C159. 1981. Transfer of 37.2 acres of land by the General Services Administration to the Department of the Interior. 12 pages 921

C160. 1981. National Register of Historic Places Inventory – Nomination Form. 4 pages 933

C161. 1981. National Park Service's Classified Structure Field Inventory Report. 2 pages 937

C162. 1983. Recommended Treatments, Fire Island Light Station. 9 pages 939

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D1. 1861. Specifications for a First-Order Light House (Brick Tower). Prepared at the Office of the Light-House Board. October 1861. Published by the Government Printing Office, Washington. 11 pages 953

D2. March 1874. "The Light-Houses of the United States," by Charles Nordhoff. Published in *Harper's New Monthly Magazine*, No. CCLXXXVI, March 1874, Vol. XLVIII. 13 pages 964

D3. December 28, 1886. Letter from Major of Engineers to 3rd/District Engineer. Describing system of lightning conductors to be adopted in lighthouses. 1 page 977

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APPENDIX A.

Discussion of Research Sources

DISCUSSION OF RESEARCH SOURCES

NATIONAL ARCHIVES AND RECORDS SERVICE

General Services Administration
Washington, D.C. 20408

Record Group 26 (Records of the United States Coast Guard) provided the prime source of historical data on the Fire Island lighthouse and keeper's dwelling in the National Archives. This record group is managed by the Civil Archives Division–Legislative, Judicial, and Fiscal Branch. A "Reference Report" (Appendix A1) was prepared by this branch, which provides information on records relating directly to the Fire Island lighthouse. The report consisted of two parts: Part I (Records Suitable for Reproduction), and Part II (Large Series of Records). The material cited in Part I was thoroughly researched for this report. The documents noted in Part II were reviewed with varying degrees of intensity as follows:

Correspondence of the Lighthouse Establishment, 1789-1850.
Not researched, since the focus of this report is the Second Fire Island Lighthouse.

Journals of the Lighthouse Board, 1850-1908, with index.
Comprised largely of the Light-House Board minutes, these records were reviewed randomly. Several volumes were researched with diminishing returns.

Correspondence of the Lighthouse Service, 1900-1939, with index.
Thoroughly researched for material on the lighthouse.

Application of Lighthouse Keepers.
Not researched, since the topic is not relevant to the intent of this historic structure report.

A large series of records not included in the "Reference Report" was also researched. This series is entitled Field Records of the Lighthouse Service, Field Records of the Third Light-House Board and Bureau, Records of the Third Light-House District (new York), 1854-1939 (Appendix A-2). These records are in disarray; their bindings are severely worn and deteriorated in some instances. The archivists have not had the opportunity to organize and review the collection in total; so the research conducted on these materials was rather disjointed and sketchy. The data retrieved was primarily in the form of annual and monthly reports of the engineers and inspectors. Citing the information extracted from the volumes was difficult because of the poor condition of the collection. Further research should be performed on these records when they become better organized and more completely understood by the archivists.

The Still Picture and Cartographic Division of the National Archives provided both photographs and drawings beneficial to the objective of this report.

UNITED STATES COAST GUARD FACILITIES

United States Coast Guard Headquarters
2100--2nd St., SW
Washington, D.C. 20593
Office of the Historian

A small library serves this office. The library features general literature related to Coast Guard history. The stacks include bound annual reports and light lists (not complete). The office has a file of relatively recent photographs (c. 1960's and later) of the Fire Island Light Station.

3rd Coast Guard District
Governors Island, New York
Engineering Division

The most complete set of drawings found to date are located at the Governors Island facility. The large majority of the drawings are in the form of photographic negatives (Appendix A-3), although more recent drawings are full-size blueprints and black lines.

United States Coast Guard Academy
New London, Connecticut
Library

The library includes bound annual reports (not complete), and a file of 20th-century photographs (ca. 1950's and later). Several drawings and land surveys are on microfilm, but these are also represented in the Governors Island collection.

MUSEUMS AND LIBRARIES

Suffolk Marine Museum
Box 144
West Sayville, NY 11796

A good photographic collection that includes the Fire Island Lighthouse Tract and Long Island maritime history.

The Mariner's Museum
Newport News, Virginia 23606

Research with this facility was conducted by correspondence. Several 20th-century photographs were obtained from this museum.

The Franklin Institute Science Museum
20th and The Parkway
Philadelphia, PA 19103

Research was conducted by correspondence. A paragraph describing the Fresnel lens was provided. The Fresnel lens removed from the Fire Island Lighthouse is exhibited in the museum.

The Peabody Museum of Salem
East India Square
Salem, Massachusetts 01970
Prints and Photographs Division

One photograph of the Fire Island Lighthouse and Keeper's Dwelling was located.

Mystic Seaport Museum
Mystic, CT 06355
Curatorial Division and G.W. Blunt Library

The library has a collection of secondary-source material on lighthouses, primarily books dating from the turn of the century to the present. The Curatorial Division's print and photograph collection offered one print. (This print was from the Peabody Museum of Salem.)

SPECIFIC SECONDARY SOURCE MATERIAL

Published Books

Two books played an important role in providing data, both general and specific, for this report. These were:

Henry R. Bang, *The Story of the Fire Island Light* (1981).

Francis Ross Holland, Jr., *America's Lighthouses: Their Illustrated History Since 1716* (Brattleboro, VT: The Stephen Greene Press, 1972).

National Park Service Reports

Several studies undertaken for park planning purposes have been prepared both by and for the Fire Island National Seashore. The most relevant to the theme of this report are listed subsequently in chronological order.

Elizabeth C. Righter (Jack McCormick & Associates, Inc.), *Final Report and Document Review and an Archeological Reconnaissance of the William Floyd Estate and the Fire Island Lighthouse Tract, Fire Island National Seashore, Suffolk County, New York* (Berwyn, PA: May 1977).

General Management Plan for Fire Island National Seashore, approved 1978.

Interpretive Prospectus for Fire Island National Seashore, Division of Interpretive Planning, Harper's Ferry Center, NPS, approved July 21, 1978.

RECOMMENDATIONS FOR ADDITIONAL HISTORICAL DOCUMENTARY RESEARCH

The Library of Congress
Washington, D.C.

Only a cursory search of the collection of this library was conducted. In the process, specifications for an 1861 lighthouse similar to the Fire Island lighthouse were found. A large quantity of secondary sources are available.

New York Libraries and Historical Societies

Time constraints and logistics limited the amount of historical research that could be conducted in state and local libraries and historical societies. It is recommended that libraries such as the Queensborough Public Library be researched, especially its photographic collection.

UNITED STATES OF AMERICA
GENERAL SERVICES ADMINISTRATION
National Archives and Records Service
Washington, DC 20408

REFERENCE REPORT

INQUIRY: Information about records relating to the Fire Island Lighthouse, New York.

REPORT: The records cited below are found among the Records of the United States Coast Guard, Record Group 26, except for Items D1 and D2 which are found in the Records of the General Accounting Office, Record Group 217.

I. Records suitable for reproduction

A. Site File, New York No. 40

1. Title to and description of the Fire Island lighthouse reservation dated May 7, 1825. 7 pages, electrostat.

2. Copy of an act passed on April 20, 1825, vesting in the United States exclusive jurisdiction over land in Suffolk county for lighthouse purposes. 4 pages, electrostat.

3. Map dated 1825 entitled "Map of a piece of land in the town of Islip and county of Suffolk, State of New York being the east beach of Fire Island Inlet." 1 page, photostat.

4. Map date 1868 of the Fire Island Light Station showing location of buildings. 1 page, photostat.

5. Map dated 1867 of the Fire Island Lighthouse reservation. 1 page, photostat.

6. Small photograph of the Fire Island lighthouse which appeared in the 1900 edition of the Light List. 1 page, electrostat.

7. Map of the Fire Island Lighthouse reservation dated 1905 showing low water mark, vegetation and the building at the Light Station. 1 page, photostat.

8. Questionnaire dated December 27, 1929, concerning the Fire Island Light Station. 2 pages, electrostat.

AMERICAN REVOLUTION BICENTENNIAL 1776-1976

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B. Clipping File, Fire Island Lighthouse.

1. Excerpts from the Annual Reports of the Lighthouse Board, 1857-1909, containing information about the Fire Island Lighthouse. 5 pages, electrostat.

2. Excerpt from the U.S Coast Guard publication Guide to Historically Famous Lighthouses relating to the Fire Island Lighthouse. 1 page, electrostat.

3. Informal history of the Fire Island Lighthouse prepared by the U.S. Coast Guard in June 1915. 2 pages, electrostat.

4. Copy of a map made in April 1825 of the Fire Island Lighthouse Reservation. 1 page, photostat.

C. Register of keepers and assistant keepers of the Fire Island Lighthouse, 1849-1912. 6 pages, photostat.

D. Specifications and Contracts.

1. Contract dated August 22, 1825, with Haviland Wicks for the erection of the Fire Island Lighthouse. 6 pages, photostats.

2. Contract dated September 30, 1825, with George W. Thompson for furnishing and outfitting the Fire Island Lighthouse. 3 pages, photostat.

E. Report dated March 1880 describing the condition of the tower, building, and premises at the Fire Island Light Station. 14 pages, electrostat.

F. Index cards of correspondence received by the Lighthouse Board relating to the Fire Island Lighthouse, 1853-1900. The correspondence to which this index relates has been heavily damaged by fire. Each card lists the name and address of the writer and date and summary of the letter. There are 403 cards pertaining to the Fire Island Lighthouse which can be copied four to a page. 101 pages, electrostat.

G. Other records.

1. Notice to Mariners dated July 11, 1858, announcing that the new lighthouse recently constructed at Fire Island will be re-lit on November 1, 1858. 1 page, electrostat.

2. Abstract history of the Fire Island Light Station, 1825-1874. 1 page, photostat.

3. Newspaper advertisement dated July 12, 1825, asking for bids for the erection and furnishing of the lighthouse to be built at Fire Island. 1 page, electrostat.

II. Large series of records.

A. Correspondence of the Lighthouse Establishment, 1789-1850.

B. Journals of the Lighthouse Board, 1850-1908, with index.

C. Correspondence of the Lighthouse Service, 1900-1939, with index.

D. Applications of Lighthouse Keepers.

To order reproductions of records listed in Part I of this report, please send a check or money order payable to the National Archives Trust Fund (NNFL), addressed to the Cashier, National Archives (GSA), Washington, DC 20408. Because of the extent and arrangement of records listed in Part II, extensive search necessary to locate records that may be of interest to a particular researcher. They can be made available for use in the Central Research Room of the National Archives.

Teresa F. Matchette

TERESA F. MATCHETTE
Legislative, Judicial and
Fiscal Branch
Civil Archives Division

NC-63

GENERAL SERVICES ADMINISTRATION
NATIONAL ARCHIVES AND RECORDS SERVICE
THE NATIONAL ARCHIVES

Preliminary Inventory of the Field Records of the Light-House Service

(Record Group 26)

Compiled by

Forrest R. Holdcamper

June 1964

This inventory has been reproduced in this form by the Office of Civil Archives in order to make it readily available for staff use. It has not been distributed as a National Archives publication.

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INTRODUCTION

This inventory supplements Preliminary Inventory NC-31, "Records of the United States Coast Guard," in which the headquarters records of the Light-House Service are described. The records described herein are a part of Record Group 26, Records of the United States Coast Guard, and amount to 430 cubic feet. They consist of the field records of the Light-House Board and Bureau that were in the National Archives on June 15, 1964, and one series of a clipping file that was accumulated by the headquarters of the Bureau. The records are for the period 1851-1939 (a few Spanish records are dated as early as 1838 and a few others are dated as late as 1943). Most of the letters sent to and received from the Light-House Board are indexed in the so-called slip index described in entry 38 of Preliminary Inventory NC-31. The analogues of most of the records are described in entries 23 and 24 of that inventory.

Other field records of the Unit 1 States Coast Guard are those of the Fifth, Sixth, Seventh, Eighth, and Thirteenth Life-Saving Districts; those of the Bering Sea Patrol; and those of the New Orleans Coast Guard District. These records are described in entries 229, 292, and 295 of Preliminary Inventory NC-31.

FIELD RECORDS OF THE LIGHT-HOUSE SERVICE

Field Records of the Light-House Board and Bureau

Records in the field districts of the Light-House Board and Bureau duplicate for the most part those in the headquarters office. After so many of the headquarters records were destroyed by a fire in the Commerce Department Building in 1921, the field records for the period 1852-1910 were transferred to the headquarters office. Records in varying quantities and of varying dates were received from the Third, Fourth, Fifth, Sixth, Seventh, Eighth, Ninth, Tenth, Twelfth, and Seventeenth Light-House Districts. The records from the Third Light-House District (New York) are dated as late as 1939 because they include records of lighthouses in Puerto Rico. There are also some records concerning lighthouses in the Virgin Islands before the islands became U.S. possessions.

RECORDS OF THE THIRD LIGHT-HOUSE DISTRICT (NEW YORK). 1854-1939.
969 vols. and unbound papers. 259 ft. 1

The records for the period 1854-1909--consisting chiefly of correspondence of the district engineer and of the district inspector--relate to the maintenance, repair, and operation of lighthouses and other aids to navigation and to personnel matters, supplies, and accounts. Included are letters received from and copies of letters sent to private persons and the Light-House Board, which are in two parts: (1) correspondence to and from private persons, and (2) correspondence to and from the Light-House Board. Each part is arranged chronologically. For the period from 1909 to 1939 the records comprise the "601" and "626" files (Operations File and Aids to Navigation File in the Coast Guard filing system); they consist of correspondence and reports of the Light-House Bureau; and they are arranged alphabetically by name of lighthouse or other aid to navigation.

RECORDS OF THE FOURTH LIGHT-HOUSE DISTRICT (PHILADELPHIA). 1921-39.
1 vol. 2 in. 2

Chiefly circular letters received by the inspector. Arranged chronologically.

RECORDS OF THE FIFTH LIGHT-HOUSE DISTRICT (BALTIMORE). 1851-1912.
542 vols. 91 ft. 3

Chiefly correspondence that is similar in nature and arrangement to the correspondence (for the period 1854-1909) described in entry 1. Included are letters received from and copies of letters sent to lighthouse keepers by the inspector and the engineer. These letters are in two parts: (1) correspondence to and from the inspector, and (2) correspondence to and from the engineer. Each part is arranged chronologically.

RECORDS OF THE SIXTH LIGHT-HOUSE DISTRICT (CHARLESTON, S.C.). 1916.
1 vol. 2 in. 4

Consist chiefly of letters and circular letters received. Arranged chronologically.

RECORDS OF THE SEVENTH AND EIGHTH LIGHT-HOUSE DISTRICTS (KEY WEST AND MOBILE, AND NEW ORLEANS). 1850-91, 1867-1940. 547 vols. and unbound papers. 60 ft. 5

Records of these districts are grouped together because of the frequent variations in district boundaries. The records consist chiefly of correspondence similar in nature and arrangement to the correspondence described in entry 1. Included are some letters relating to lights in Puerto Rico and some reports. Also included are letters received from and copies of letters sent to lighthouse keepers by the inspectors and engineers; these letters are in two parts: (1) correspondence to and from the inspectors, and (2) correspondence to and from the engineers. Each part is arranged chronologically.

RECORDS OF THE NINTH LIGHT-HOUSE DISTRICT (CHICAGO). 1886-1905.
168 vols. and unbound papers. 28 ft. 6

These records consist of correspondence similar in nature and arrangement to the correspondence described in entry 3.

RECORDS OF THE TENTH LIGHT-HOUSE DISTRICT (BUFFALO). 1893-1938.
5 vols. 1 ft. 7

These records consist of all letters received by both the inspector and the engineer. Arranged chronologically.

RECORDS OF THE TWELFTH LIGHT-HOUSE DISTRICT (SAN FRANCISCO). 1855-59, 1871-1913. 9 vols. and unbound papers. 10 ft. 8

In two parts: (1) volumes of press copies of letters received by the inspector for the period 1855-59; and (2) letters received and copies of letters sent, reports, and various records relating to wrecks for the period 1871-1910. The records in each part are arranged chronologically.

RECORDS OF THE SEVENTEENTH LIGHT-HOUSE DISTRICT (PORTLAND, OREG.).
1909-22. 3 vols. 6 in. 9

Letters received by both the inspector and the engineer. Arranged chronologically.

REGISTER OF VISITORS AT EDIZ HOOK LIGHTHOUSE, WASH. (SEVENTEENTH LIGHT-HOUSE DISTRICT). 1895-1943. 1 vol. 2 in. 10

Shown are name and address of visitor and date of visit. Entries are arranged chronologically.

RECORDS OF LIGHTHOUSES IN THE VIRGIN ISLANDS. 1910-17. 4 in. 11

Chiefly deeds to lighthouses and reports concerning their condition.

These records, for the most part in Danish, were acquired when the Virgin Islands were purchased by the United States. Arranged chronologically.

RECORDS OF LIGHTHOUSES IN PUERTO RICO. 1838-99. 5 ft. 12

Most of these records are in paperbound volumes. They relate to the operation, repair, and maintenance of lighthouses. Included are a few records of the Colonial Spanish Government relating to the central administration of lighthouses. The records, in Spanish, were taken over when the United States acquired Puerto Rico. Arranged chronologically.

Bureau Records Relating to Light-House Districts

CLIPPINGS RELATING TO LIGHTHOUSES. ca. 1910-39. 12 ft. 13

Chiefly newspaper and magazine clippings, but included are some photographs relating to lighthouses and other aids to navigation and some handwritten or typed histories of them. This file was created in the Light-House Bureau in the period 1910-39, but information in it dates back to the establishment of the earliest lighthouses in America. Material in the file is arranged by lighthouse district and thereunder alphabetically by name of lighthouse or other aid to navigation.

Drawings Located at Coast Guard Station, Governors Island, New York (Currently Located at Fire Island NS/NPS)

DRAWING NO.	TITLE	DATE
3-IF-I	Fire Island Sta. Plot Plan	November 1908
3-FI-3	Fire Island Sta. Location Map	1891
3-IF-6	Fire Island Sta. Plan-Sections - Elevations	2 June 1857
3-IF-7	Fire Island Sta. Vertical Section	January 1894
3-IF-8	Fire Island Sta. Plan of Watch Room & Gallery	January 1894
3-IF-9	Fire Island Sta. Plan of Lantern Floor	January 1894
3-IF-15	Fire Island Sta. Plan of Fire Is. Light Station	7 April 1868
3-IF-16	Fire Island Sta. Elevation Lt. House & Dwelling	7 March 1891
3-IF-16A	Fire Island Sta. Plan	20 Oct. 1894
3-IF-17	Fire Island Sta. Plot Plan	6 Sept. 1889
3-IF-18	Fire Island Sta. Plot Plan	20 Feb. 1888
3-IF-20	Fire Island Sta. Geodetic Survey	1873
3-IF-21	Fire Island Sta. Plot Plan	14 Nov. 1884
3-IF-32	Fire Island Station Location of Boathouse	24 Feb. 1939

DRAWING NO.	TITLE	DATE
1370	Fire Island Sta. Light Sta. Reservation	3 June 1904
1372	Fire Island Sta. Plot Plan	9 August 1902
1374	Fire Island Sta. Lantern Watch Rm.	Jan. 1894
1375	Fire Island Sta. Watch Rm. Floor & Col. Plan	Jan. 1894
1379	Fire Island Sta. Elevation of Tower	No date
1548	Fire Island Sta. Tower Electrical Plan	24 July 1894
1555	Fire Island Sta. Settings of Engines & Dynamos	13 Sept. 1894
2199 Sh. 1 of 2	Fire Island Sta. Plot Plan	7 April 1868
2199 Sh. 2 of 2	Fire Island Sta. South Elevation Light House Dwell	No date
2415 Sh. 1 of 3	Fire Island Sta. Plan of Cellar Dwelling	No date
2415 Sh. 3 of 3	Fire Island Sta. East Elevation Dwelling & Lt. House	No date
5155 Sh. 1 of 1	Fire Island Sta. Protective Covering for Tower	17 April 1912
7394 Sh. 1 of 1	Fire Island Sta. Heating System Dwelling	22 March 1929
7442 Sh. 1 of 1	Fire Island Sta. Buoy Pier	28 June 1929
7481 Sh. 1 of 2	Fire Island Sta. Boat Cranes Detail	26 March 1970

DRAWING NO.	TITLE	DATE
7481 Sh. 2 of 2	Fire Island Sta. Boat Crane Details	26 March 1970
7529 Sh. 1 of 3	Fire Island Sta. House - Elevation & Details	3 April 1931
7529 Sh. 2 of 3	Fire Island Sta. House - Cellar & 1st Floor Details	3 April 1931
7529 Sh. 3 of 3	Fire Island Sta. Elevation & Details Station Dwelling	3 April 1931
7825 Sh. 1 of 1	Fire Island Sta. Beach Protection	14 Sept. 1932
7833 Sh. 1 of 3	Fire Island Sta. 1st Order Lens, Revolving Apparatus & Pedestal	20 Sept. 1932
7833 Sh. 2 of 3	Fire Island Sta. Sections	31 Aug. 1932
7833 Sh. 3 of 3	Fire Island Sta. Pedestal Doors & Revolving Apparatus	20 Sept. 1932
7840 Sh. 1 of 1	Fire Island Sta. Temporary Lens Installation	20 Sept. 1932
7963 Sh. 1 of 1	Fire Island Sta. Plot Plan	10 Oct. 1933
8221 Sh. 1 of 1	Fire Island Sta. Installation of Electric Light Dwelling	9 Sept. 1937
8332 Sh. 1 of 3	Fire Island Sta. Sections & Details	1 Aug. 1938
8332 Sh. 2 of 3	Fire Island Sta. Motor Drive for Lens	1 Aug. 1938
8332 Sh. 3 of 3	Fire Island Sta. Motor Drive for Lens Details	1 Aug. 1938
8336 Sh. 1 of 1	Fire Island Sta. Lamp Stand	10 Aug. 1938

DRAWING NO.	TITLE	DATE
8383 Sh. 1 of 2	Fire Island Sta. Boathouse & Track Details	18 Jan. 1939
8393 Sh. 2 of 2	Fire Island Sta. Boathouse & Track Elevation Proposed 1937	18 Jan. 1939
8485 Sh. 1 of 1	Fire Island Sta. Topographical Survey	12 Jan. 1940
100231	Fire Isl. Sta. Plot Plan	June 1920
100446 Sh. 1 of 2	Fire Island Sta. Dwelling Plan	July 1925
100446 Sh. 2 of 2	Fire Island Sta. Dwelling Elevations	July 1925
100669	Fire Island Sta. Plot Plan	9 June 1920
100871 Sh. 3 of 14	Fire Island Sta. Dwelling 2nd Floor Plan- Front Elevation	No date
100871 Sh. 5 of 14	Fire Island Sta. Dwelling Elevations	No date
100871 Sh. 6 of 14	Fire Island Sta. Dwelling Sections-Elevation	No date
100871 Sh. 8 of 14	Fire Island Sta. Boathouse-Foundation Plan-Section	No date
100871 Sh. 9 of 14	Fire Island Sta. Boathouse - Floor Plan-Elevation	No date
100871 Sh. 10 of 14	Fire Island Sta. Boathouse-Elevations	No date
100871 Sh. 11 of 14	Fire Island Sta. Launchway Section	No date

DRAWING NO.	TITLE	DATE
100871 Sh. 12 of 14	Fire Island Sta. Launchway Sections	No date
100873 Sh. 1 of 4	Fire Island Sta. Plot Plan	No date
100873 Sh. 2 of 4	Fire Island Sta. Barracks-Foundation & First Floor Plan	No date
100873 Sh. 3 of 4	Fire Island Sta. Barracks Sections-Elevations	No date
101723 Sh. 1 of 1	Fire Island Sta. Plot Plan	27 April 1940
102413	Fire Island Sta. Antenna Tower	29 June 1945
102631 Sh. 1 of 4	Fire Island Sta. Floor Plan Tel. Repeater Bldg.	22 Sept. 1950
102631 Sh. 2 of 4	Fire Island Sta. Tel. Repeater Bldg. Elevation (South, North, East, West)	22 Sept. 1950
102631 Sh. 3 of 4	Fire Island Sta. Details & Plans Tel. Repeater Bldg.	22 Sept. 1950
102631 Sh. 4 of 4	Fire Island Sta. Typical Details - Tel. Repeater Bldg.	22 Sept. 1950
F925-S16 Sh. 2 of 2	Fire Island Annex Details of Tee	April 1914
F925-S17 Sh. 1 of 2	Fire Island Annex Pier & Walk Details	April 1914
F925-S18	Fire Island Annex Telefunken Compass Building	10 Aug. 1914
F925-S-20	Fire Island Annex Compass Aerial Foundation	July 1914
F925-S-22	Fire Island Annex Compass House Foundation	4 June 1915

DRAWING NO.	TITLE	DATE
F925-S24	Fire Island Annex Telefunken Aerial Foundation	June 1915
F-925-S-25	Fire Island Annex Plan-Elevations-Sections	16 May 1916
F925-S27	Fire Island Annex Sewage Disposal System	Aug. 1916
F925-S29	Fire Island Annex Landing Wharf-Plan-Sect-Details	March 1918
F925-S30	Fire Island Annex Foundation Plan	February 1919
F925-S31	Fire Island Annex 2nd Floor Plan-East Elevation	February 1919
F-925-S-32	Fire Island Annex North-South Elevations	February 1919
F-925-S-33	Fire Island Annex Sections & Details	February 1919
F-925-S34	Fire Island Annex 1st Floor Heating & Plumbing Plan	February 1919
F925-S35	Fire Island Annex 2nd Floor Heating & Lighting Plan	February 1919
F925-S36	Fire Island Annex 1st Floor Electrical Plan	February 1919
F925-S38	Fire Island Annex Misc Details	December 1918
F925-S-39	Fire Island Annex Heating System Extension	November 1918
F925-S40	Fire Island Annex Canteen & Storeroom Shelving	March 1919
F925-S41	Fire Island Annex Water Supply System	July 1919

DRAWING NO.	TITLE	DATE
F925-S42	Fire Island Annex Plumbing Plan	September 1919
F925-S55	Fire Island Annex Tank Tower Bracing	April 1928
F925-S78	Fire Island Annex Engine House Foundation Repairs	30 July 1935
F925-S79 Sh. 1 of 1	Fire Island Annex Water Supply System Repairs	7 April 1936
F925-S80	Fire Island Annex Proposed Fresh Water Lines	1936
F925-S81	Fire Island Annex New Water Supply System	9 July 1936
F925-S-85	Fire Island Annex Showing Conditions	30 June 1936
F925-S93 Sh. 1 of 1	Fire Island Annex Pier-Boardwalk Grading	21 February 1939
F925-S94 Sh. 1 of 2	Fire Island Annex Storm Damage Repairs	23 March 1939
F925-S95 Sh. 2 of 2	Fire Island Annex Storehouse-Plan-Elevation-Sections	23 March 1939
F925-S98 Sh. 1 of 3	Fire Island Annex Barrack Repairs	13 Oct. 1939
F925-S99 Sh. 2 of 3	Fire Island Annex C.R.M. Quarters Repairs	13 Oct. 1939
F925-SlOO	Fire Island Annex Barracks Repairs	13 Oct. 1939
F925-S-318	Fire Island Annex Sewage Disposal System	10 Oct. 1934
NY1264 Sh. 1 of 1	Fire Island Annex Diesel Generator Foundation	28 Aug. 1947

DRAWING NO.	TITLE	DATE
NY1282 Sh. 1 of 2	Fire Island Annex Underground Electric Service	29 March 1948
NY1373 Sh. 1 of 1	Fire Island Sta. Plot Plan	7 Feb. 1950
NY83354	Fire Island Sta. Log of Deep Well	7 Dec. 1939
83-391	Fire Island Sta. Dwelling & Barracks, Alterations Details	2 Aug. 1941
NY83457 Sh. 1 of 1	Fire Island Sta. Inscription Board	17 Oct. 1940
NY83513 Sh. 1 of 1	Fire Island Sta. Fuel Oil Tank & Connections	16 Dec. 1941
NY83708 Sh. 1 of 1	Fire Island Station Recreation & Toilet Facilities	3 Nov. 1942
NY83755 Sh. 1 of 1	Fire Island Sta. Plan & Details Sewage Disposal	18 May 1931
03-1270	Fire Isl. Rad Annex Diesel Generators	20 Oct. 1947
03-1398 Sh. 1 of 2	Fire Isl. Rad Annex Air Conditioning	22 May 1950
03-1398 Sh. 2 of 2	Fire Isl. Rad Annex Air Condition Unit	22 May 1950
03-1565	Fire Island Sta. 7 Pile Dolphin	17 Feb. 1953
03-1565	Fire Island Sta. 7 Pile Dolphin	17 Feb. 1953
03-1565	Fire Island Sta. 7 Pile Dolphin	17 Feb. 1953
03-1787	Fire Island Rad. Annex Arrangement of Electric Power Schematic	22 Jan. 1958

DRAWING NO.	TITLE	DATE
03-1866 Sh. 1 of 2	Fire Isl. Radio Annex Architectural Improvements to Bldg.	12 March 1958
03-1867 Sh. 2 of 2	Fire Island Rad. Annex Architectural Improvements to Bldgs.	12 March 1958
03-1951	Fire Island Sta. Reflector Antenna Bracket	12 Sept. 1958
03-2235	Fire Island Sta. Resurfacing Tower Exterior	21 Oct. 1960
03-2242	Fire Island Sta. Repairs to Free Standing Steel Bulkhead	2 Nov. 1960
03-2339	Fire Island Radio Annex Revision of Existing Evap. Condenser	6 April 1961
03-2424	Fire Island Sta. 440 Volt Shore Tie Installation	6 Sept. 1961
03-2460	Fire Island Sta. Electrical Schematic	19 Feb. 1964
03-2513	Fire Island Sta. Repairs to Existing Freestanding St'l B'lkhd	2 April 1962
03-2610	Fire Island Rad. Annex Const. on Septic Tank & Drainage	21 Sept. 1962
03-2612	Fire Isl. Rad. Annex Plumbing & Water Treating Equip.	5 Oct. 1962
03-2618 Sh. 1 of 2	Fire Isl. Rad. Annex Fire Detection & Alarm System	19 Feb. 1963
03-2618 Sh. 2 of 2	Fire Island Rad. Annex Fire Detectors & Alarm System	19 Feb. 1963
03-2619 Sh. 1 of 3	Fire Island Sta. Fire Dwelling Detection & Alarm System	19 Feb. 1963
03-2619 Sh. 2 of 3	Fire Island Sta. Fire Detection Alarm System	19 Feb. 1963

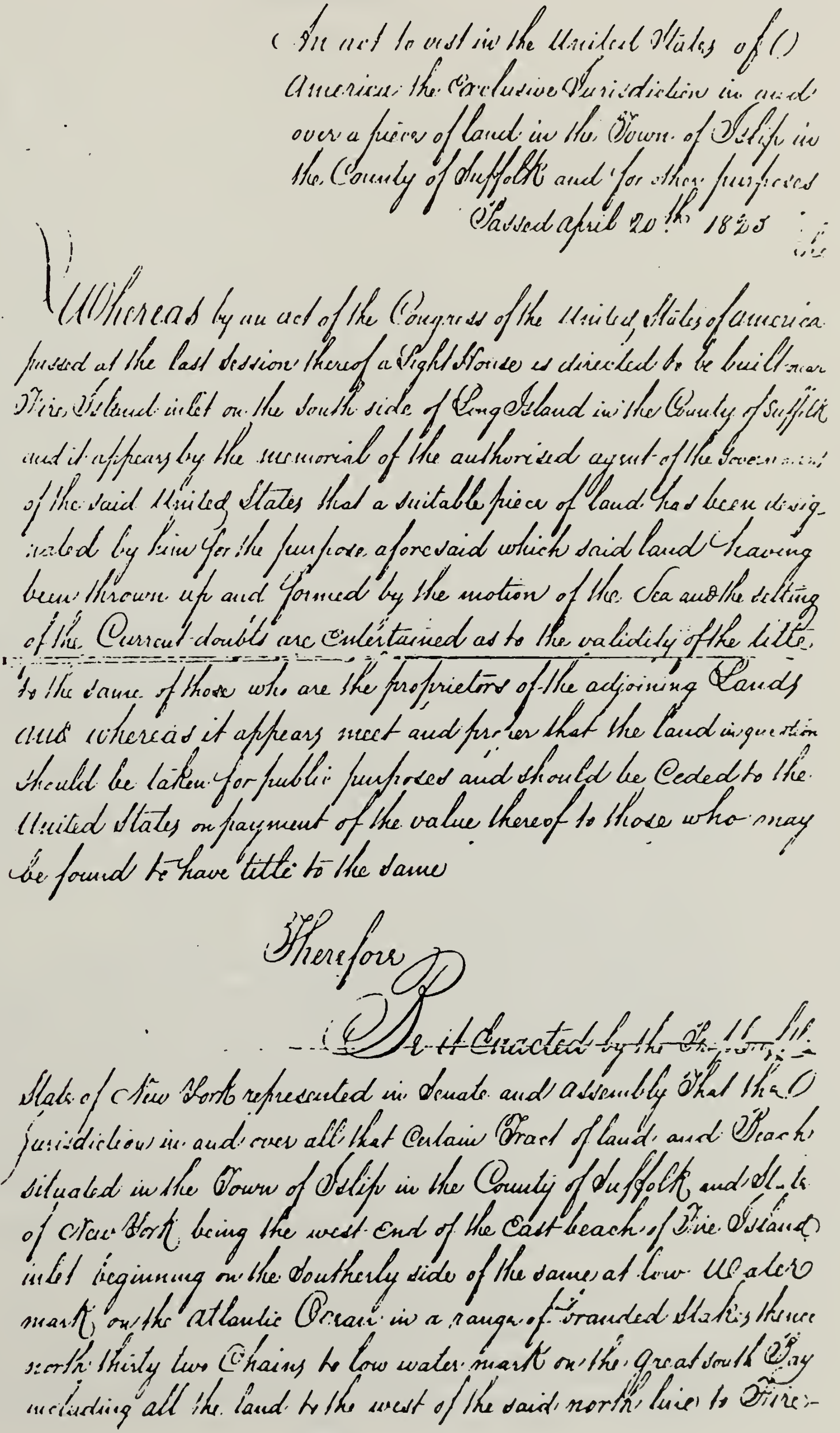
DRAWING NO.	TITLE	DATE
03-2619 Sh. 3 of 3	Fire Island Sta. Fire Detection & Alarm System	19 Feb. 1963
03-2701	Replacement of Standby Generator	18 April 1963
03-2702	Fire Island Sta. Modification to Fuel System	1 May 1963
03-2768 Sh. 1 of 2	Fire Island Radio Annex Waterproofing Plan & Elevations	14 Feb. 1964
03-2768 Sh. 2 of 2	Fire Island Rad. Annex Windows & Doors	14 Feb. 1964
03-2707	Fire Island Annex C02 System for Transmitter Room	17 April 1963
03-2715	Fire Island Rad. Station Heating Repairs	30 April 1963
03-2745	Fire Island Rad. Annex Roofing Plan & Sections	1I August 1963
03-2805	Fire Island Sta. Installation of New Generator	12 Nov. 1963
03-2814	Fire Island Sta. Paved Roadways - Plot Plan & Section	9 Jan. 1964
03-2878	Fire Island Sta. Galley Modernization	12 Feb. 1964
03-3049 Sh. 1 of 7	Fire Island Sta. Dwelling & Barracks Additions	20 May 1940
03-3049 Sh. 2 of 7	Fire Island Sta. Dwelling & Barracks Additions	20 May 1940
03-3049 Sh. 3 of 7	Fire Island Sta. Dwelling & Barracks Additions	20 May 1940
03-3049 Sh. 4 of 7	Fire Island Sta. Dwelling & Barracks East & West Elevat.	20 May 1940

DRAWING NO.	TITLE	DATE
03-3049 Sh. 5 of 7	Fire Island Sta. Dwelling & Barracks Alternations	20 May 1940
03-3049 Sh. 6 of 7	Fire Island Sta. Dwelling & Barracks Alterations	20 May 1940
03-3049 Sh. 7 of 7	Fire Island Sta. Storehouse Plan & Elevation	20 May 1940
03-3050 Sh. 1 of 3	Fire Island Sta. Combination Store House	11 Feb. 1936
03-3050 Sh. 2 of 3	Fire Island Sta. Combination Store House	11 Feb. 1936
03-3050 Sh. 3 of 4	Fire Island Sta. Combination Store House	11 Feb. 1936
03-3051 Sh. 1 of 8	Fire Island Sta. Launchway	29 April 1940
03-3051 Sh. 2 of 8	Fire Island Sta. Outer Steel Bulkheads	No date
03-3051 Sh. 3 of 8	Fire Island Sta. Plan of Framing for Wharfs	No date
03-3051 Sh. 4 of 8	Fire Island Sta. Wharf Sections	No date
03-3051 Sh. 5 of 8	Fire Island Sta. Wood Bulkhead Sections	No date
03-3051 Sh. 6 of 8	Fire Island Sta. Wharf Sections	No date
03-3051 Sh. 7 of 8	Fire Island Sta. Wood Bulkhead Elevations	No date
03-3051 Sh. 8 of 8	Fire Island Station Launchway	No date
03-3052	Fire Island Sta. Store House 30' x 40' Elevations	12 June 1941

APPENDIX B.

Historical Documents Relating to the First Fire Island Lighthouse and Keeper's Dwelling

APPENDIX B1.



An act to vest in the United States of America the Exclusive Jurisdiction in and over a piece of land in the Town of Islip in the County of Suffolk and for other purposes

Passed april 20th 1825

Whereas by an act of the Congress of the United States of America passed at the last session thereof a Light House is directed to be built near Fire Island inlet on the south side of Long Island in the County of Suffolk and it appears by the memorial of the authorised agent of the Government of the said United States that a suitable piece of land has been designated by him for the purpose aforesaid which said land having been thrown up and formed by the motion of the Sea and the setting of the Current doubts are entertained as to the validity of the title to the same of those who are the proprietors of the adjoining Lands and whereas it appears meet and proper that the land in question should be taken for public purposes and should be Ceded to the United States on payment of the value thereof to those who may be found to have title to the same

Therefore

Be it Enacted by the People of the State of New York represented in Senate and assembly That the jurisdiction in and over all that Certain Tract of land and Beach situated in the Town of Islip in the County of Suffolk and State of New York being the west End of the East beach of Fire Island inlet beginning on the Southerly side of the same at low Water mark on the Atlantic Ocean in a range of branded Stakes thence north thirty two Chains to low water mark on the Great south Bay including all the land to the west of the said north line to Fire-

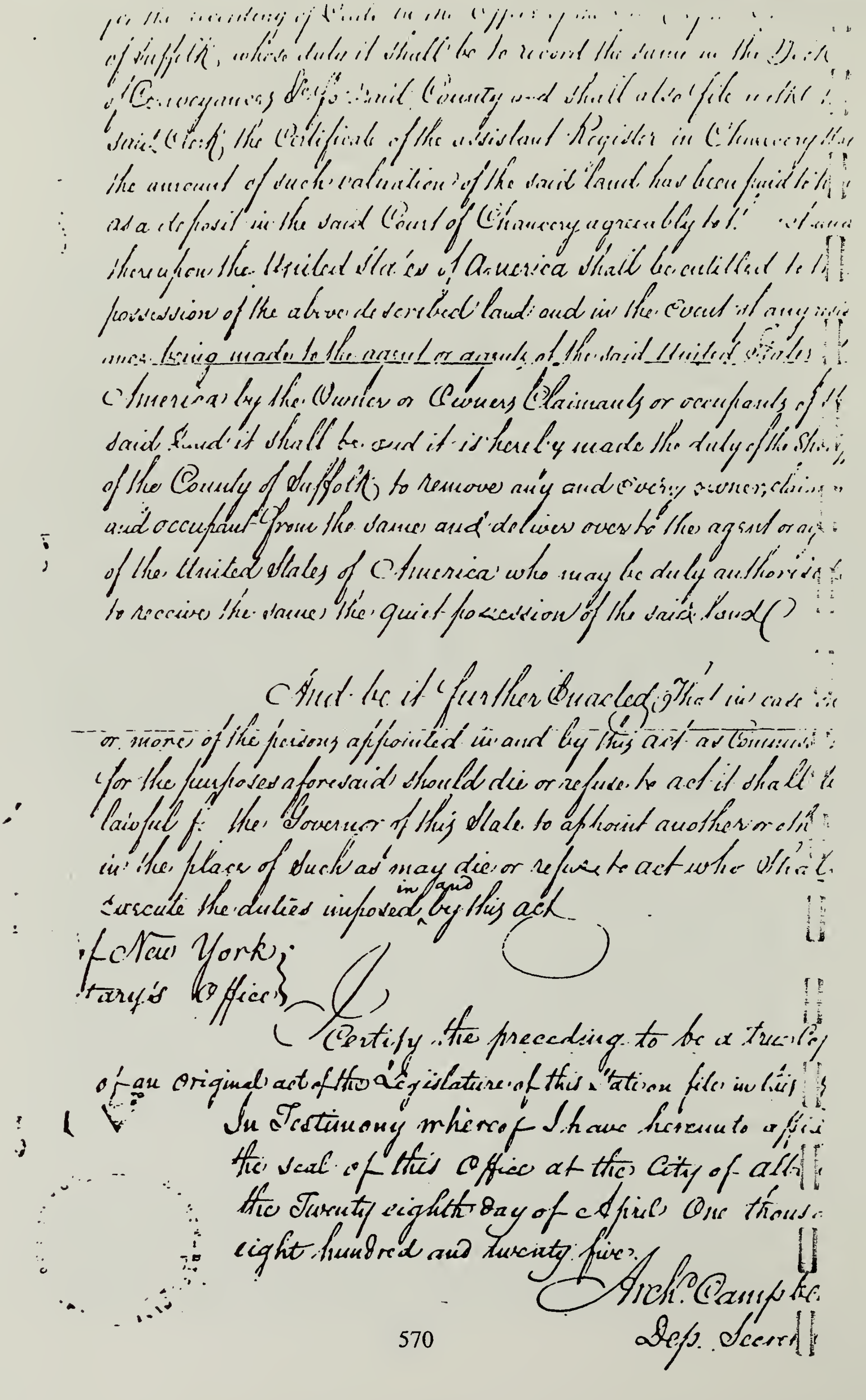
National Archives RG 26
Site File, New York No. 40
Copy of an act passed on April 20, 1825, vesting in the
United States exclusive jurisdiction over land in Suffolk
County for Lighthouse purposes.

is hereby Ceded to the United States of America for the purpose of Erecting a Light House on the same together with all the Right title and interest of this State of in and to the same; Provided nevertheless that such Jurisdiction so Ceded as aforesaid shall not Extend or be Construed to Extend so as to prevent or impede the Execution of any process of Law civil or Criminal under the authority of this State Except so far forth as such process may affect any of the real or personal property of the United States of America within the said Tract of land and that all the lands and tenements within the limits aforesaid shall be and Continue forever hereafter Exempted from all Taxes assessments and other Charges which may be laid under the authority of this State.

And be it further Enacted, That Treadwell Scudder and Smith Carl Esquires of the County of Suffolk and Samuel S Gardiner Esquire of the City of New York be and they are hereby appointed Commissioners to appraise and Estimate the value of the land above described and required in and by the said Act of the Congress of the United States of America for the erection of a Light House on the same in the County of Suffolk aforesaid whose Report when made and duly Certified under their hands and seals and filed as of Record in the Office of the Assistant Register in Chancery for this State shall be binding and Conclusive against the Owner or Owners of the said land and all persons whomsoever interested therein and on filing the Report of the Commissioners as aforesaid which it shall be their duty to do on or before the first day of September next the amount of such appraisement shall be paid on the part of the United States of America to the said Assistant Register and remain in Court subject to the order of the Chancellor who is hereby authorised and directed to make his order for the interested in the said land agreeable to their several rights and interests therein Provided they shall apply to him for that purpose within one year from the date of such deposit And provided further that they shall satisfy the Chancellor of their legal or Equitable title to the said land and of their right to receive the said monies and provided further that before the persons herein named or hereafter to be appointed Commissioners to appraise as aforesaid shall proceed to the Execution of the duties assigned them by this Act they shall take an oath or affirmation before some magistrate authorised to administer Oaths impartially to Execute the trust hereby reposed in them which Oath or affirmation shall be attached to and filed with their report and they shall before they proceed to the valuation and Estimate of the said land give at least fourteen days previous notice by publishing the same in a newspaper printed in the said County of Suffolk to the Owners or Claimants of the said land and also the agent or agents on the part of the United States of the time and place of their meeting for the purpose of making such Estimate and valuation of the said land

And be it further Enacted That if no application shall be made to the said Chancellor for the said monies within the period of One year or such application being made it shall appear that such applicants have no Legal or Equitable title to the said land then the said monies shall be paid into the Treasury of this State to be disposed of in such manner as the Legislature may thereafter direct

And be it further Enacted That the said Commissioners shall file a duplicate of their report as aforesaid duly acknowledged or proved in the manner required by law



for the recording of Deeds in the Office of the [illegible]
of Suffolk, whose duty it shall be to record the same in the Book
of Conveyances of said County and shall also file with
said Clerk the Certificate of the assistant Register in Chancery that
the amount of such valuation of the said land has been paid to h
as a deposit in the said Court of Chancery agreeably to [illegible] and
thereupon the United States of America shall be entitled to th
possession of the above described land: and in the event of any re
ance being made to the agent or agents of the said United States
America by the Owner or Owners Claimants or occupants of th
said Land it shall be and it is hereby made the duty of the Sher
of the County of Suffolk to remove any and every owner, claim
and occupant from the same and deliver over to the agent or ag
of the United States of America who may be duly authoris
to receive the same the quiet possession of the said land

And be it further Enacted That in case o
or more of the persons appointed in and by this act as Commiss
for the purposes aforesaid should die or refuse to act it shall b
lawful f the Governor of this State to appoint another or oth
in the place of such as may die or refuse to act who shall
execute the duties imposed in and by this act

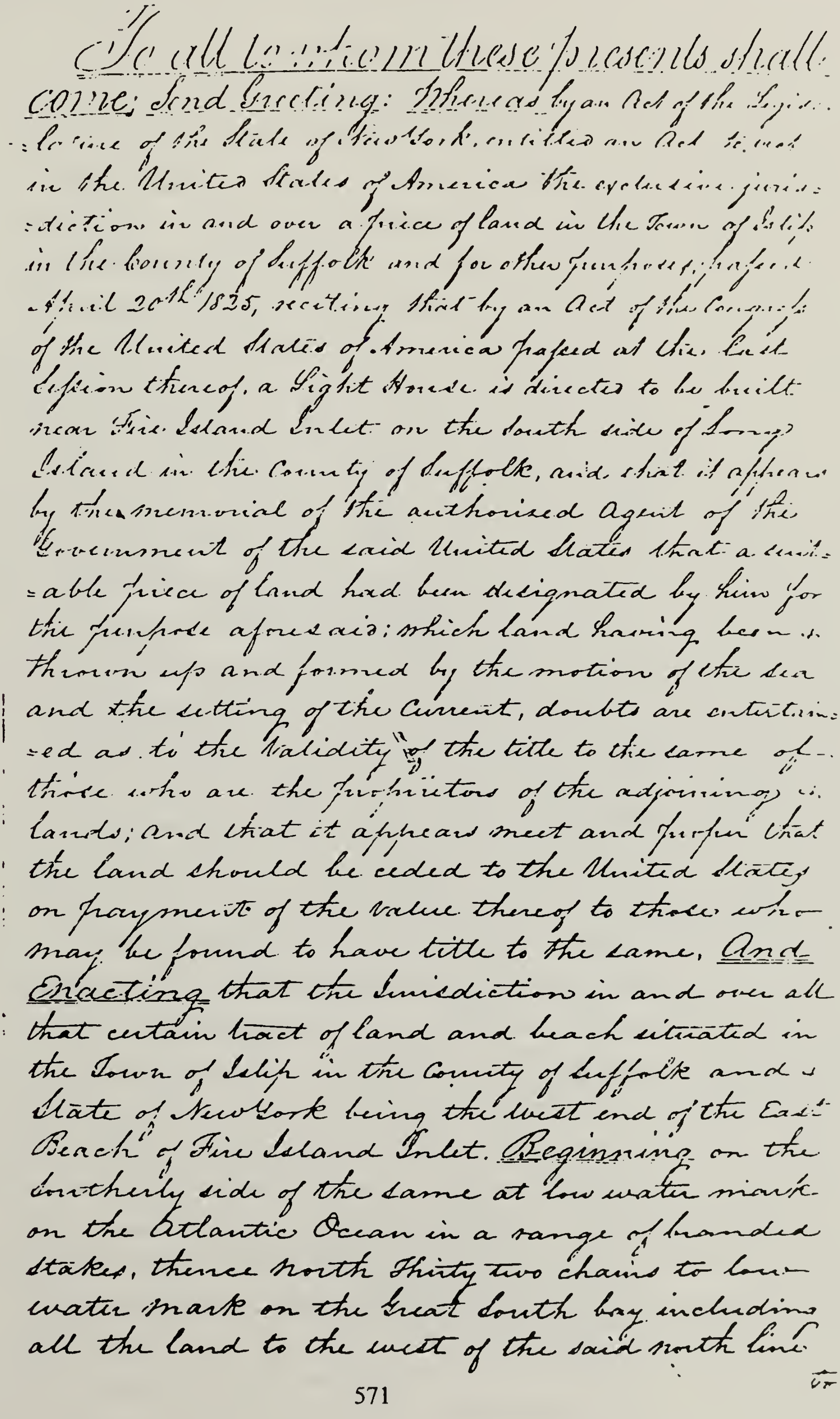
f New York
tary's Office

I Certify the preceding to be a true Co
of an original act of the Legislature of this State on file in this
In Testimony whereof I have hereunto affi
the seal of this Office at the City of Alb
the Twenty eighth day of April One thous
eight hundred and twenty five.

Archd. Campbe
Dep. Secret

APPENDIX B2.

National Archives 26
Site File, New York No. 40
Title to and description of the Fire Island Lighthouse reservation, dated May 1825.



To all to whom these presents shall come; Send Greeting: Whereas by an Act of the Legislature of the State of New York, entitled an Act to vest in the United States of America the exclusive jurisdiction in and over a piece of land in the Town of Islip in the County of Suffolk and for other purposes, paſsed April 20th 1825, reciting that by an Act of the Congreſs of the United States of America paſsed at the last seſsion thereof, a Light House is directed to be built near Fire Island Inlet on the south side of Long Island in the County of Suffolk, and that it appears by the memorial of the authorised Agent of the Government of the said United States that a suitable piece of land had been designated by him for the purpose aforesaid: which land having been thrown up and formed by the motion of the sea and the setting of the Current, doubts are entertained as to the validity of the title to the same of those who are the proprietors of the adjoining lands; and that it appears meet and proper that the land should be ceded to the United States on payment of the value thereof to those who may be found to have title to the same. And Enacting that the Jurisdiction in and over all that certain tract of land and beach situated in the Town of Islip in the County of Suffolk and State of New York being the West end of the East Beach of Fire Island Inlet. Beginning on the southerly side of the same at low water mark on the Atlantic Ocean in a range of branded stakes, thence North Thirty two chains to low water mark on the Great South bay including all the land to the west of the said north line

APPENDIX B2.

to Fire Island Inlet aforesaid at low water mark be and the same was by said Act ceded to the United States of America for the purpose of erecting a Light House on the same, And further enacting that Treadwell Scudder and Smith Carll Esquires of the County of Suffolk and Samuel S. Gardiner Esquire of the City of New York be and they were by the said Act appointed Commissioners to appraise and estimate the value of the land described in said Act and required by the Act of the Congress of the United States of America for the erection of a Light House on the same in the County of Suffolk, whose Report when made and duly certified under their hands and seals and filed as of record in the office of the Assistant Register in Chancery for this State, should be binding and conclusive against the owner or owners of the said land and on all persons whomsoever interested therein. And that on filing the Report of the Commissioners which in and by said Act it is made their duty to do on or before the first day of September next, the amount of such appraisement shall be paid on the part of the United States of America to the said Assistant Register, and remain in Court subject to the order of the Chancellor. And further Enacting that the said Commissioners ap=pointed for the purposes aforesaid before they should proceed to the execution of the duties assigned them by the said Act should take an oath or affirmation before some magistrate authorised to Administer oaths, impartially to execute the trust reposed in them, which oath or affirmation was directed to be attached to and filed with their Report of estimate. And the said Commissioners were also directed by the said Act before they proceed to the valuation and estimate of the said land to give at least fourteen days previous notice by publishing the same in a Newspaper printed in the said County of Suffolk to the owners and others [illegible] or affirmation filed with their Report of estimate. And the said Commiſsioners were also directed by the said Act before they proceed to the valuation and estimate of the said land to give at least fourteen days previous notice by publishing the same in a Newspaper printed in the said County of Suffolk to the owners and claimants of the said land and also to the Agent or Agents on the part of the United States of the time and place of their meeting for the purpose of making such estimate and valuation of the said land. And further Enacting, that the said Commiſsioners should file a duplicate of their Report duly acknowledged or proved in the manner required by Law for the recording of deeds, in the Office of the Clerk of the County of Suffolk whose duty it should be to record the same in the Book of Conveyances for said County; And that the said Commiſsioners should also file with the said Clerk the certificate of the Aſsistant Register in Chancery that the amount of such valuation of the said land had been paid to him as a deposit in the said Court of Chancery agreeably to said Act and that thereupon the said United States of America should be entitled to the poſseſsion of the said land. Now Know Ye that we Tredwell Scudder, Smith Carll and Samuel S. Gardiner the Commiſsioners named in said Act after having taken the oath required and directed in and by said Act a copy of which is annexed to this our Report. And after having given at least fourteen days previous notice of the time and place of our meeting as required by said Act, which notice was published in a public Newspaper called the American Eagle and printed in the Town of Huntington in the

said

APPENDIX B2.

said County of Suffolk, a copy of which said notice and also an affidavit of its publication is hereto annexed, did meet pursuant to said notice, at the house of Luther Soper on the twenty seventh day of May eighteen hundred and twenty five for the purpose of appraising and estimating the value of the said lands particularly described in the said Act and in this Report And that we did estimate and appraise the value of the said land as described in the said act to be Fifty ———————— Dollars.

In Witness whereof we have hereunto set our hands and seals this twenty seventh day of May in the year of our Lord one thousand Eight hundred and twenty five.

Signed & Sealed
In the presence of
Jeremiah Smith
Henry Brewster

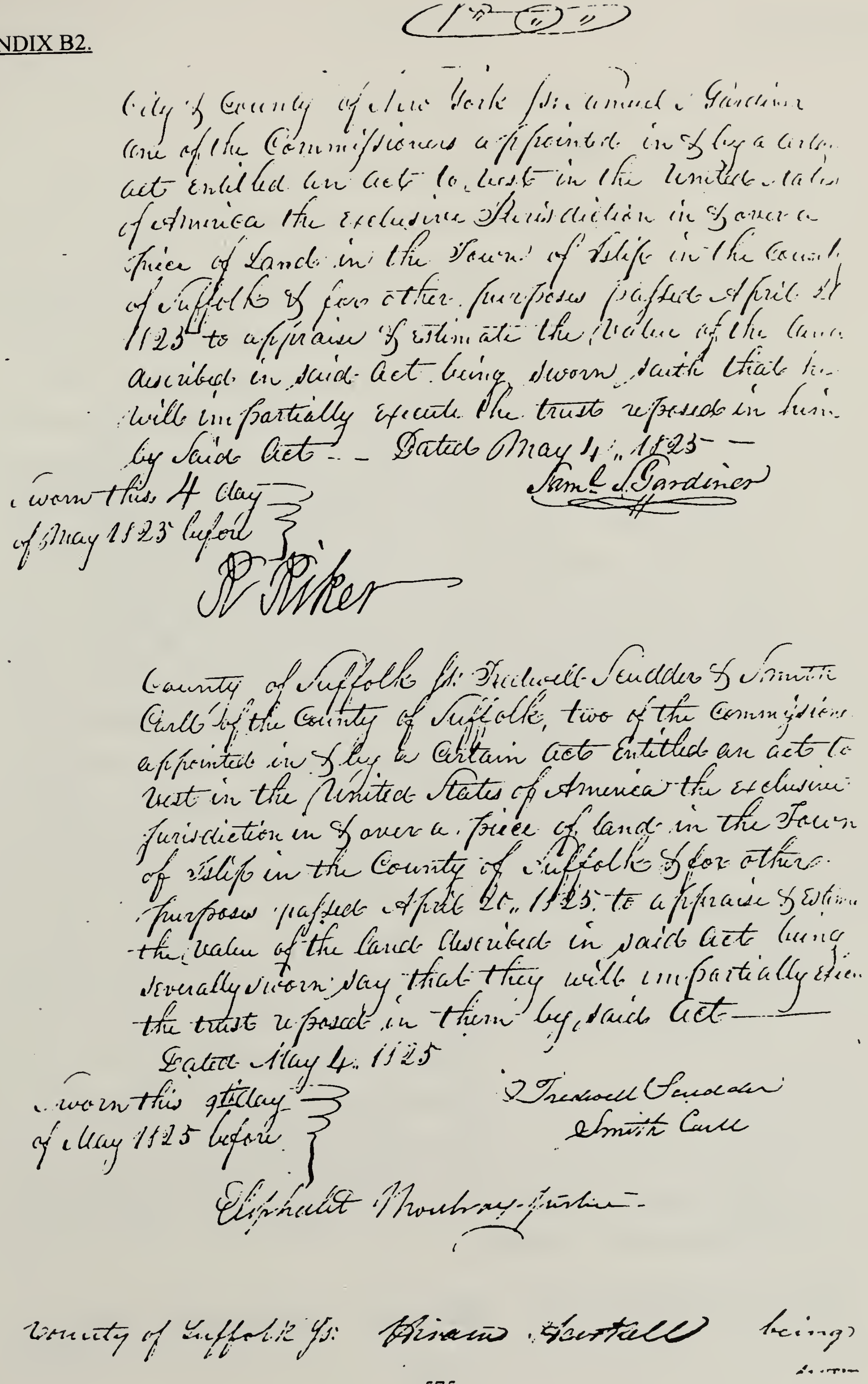
Tredwell Scudder
Smith Carll
Saml. S Gardiner

Suffolk County ss: On this twenty seventh day of May in the year eighteen hundred and Twenty five personally appeared before me Tredwell Scudder Smith Carll and Samuel S Gardiner known to me to be the persons described in and who executed the above report and they duly acknowledged that they executed the same for the uses and purposes therein mentioned

Henry Brewster Commissioner

City & County of New York ss: Samuel S Gardiner One of the Commissioners appointed in & by a certain act Entitled an act to vest in the United States of America the exclusive Jurisdiction in & over a piece of land in the Town of Islip in the Co

APPENDIX B2.



1st (11)

City & County of New York ss: Samuel S. Gardiner one of the Commissioners appointed in & by a certain act entitled An act to vest in the United States of America the exclusive Jurisdiction in & over a piece of Land in the Town of Islip in the County of Suffolk & for other purposes passed April 20 1825 to appraise & estimate the value of the land described in said act being sworn saith that he will impartially execute the trust reposed in him by said act -- Dated May 4" 1825 —

Saml. S. Gardiner

Sworn this 4 day
of May 1825 before

R. Riker

County of Suffolk ss: Tredwell Scudder & Smith Carll of the County of Suffolk, two of the Commissioners appointed in & by a certain act Entitled an act to vest in the United States of America the exclusive jurisdiction in & over a piece of land in the Town of Islip in the County of Suffolk & for other purposes passed April 20" 1825 to appraise & estimate the value of the land described in said act being severally sworn say that they will impartially execute the trust reposed in them by said act —

Dated May 4" 1825

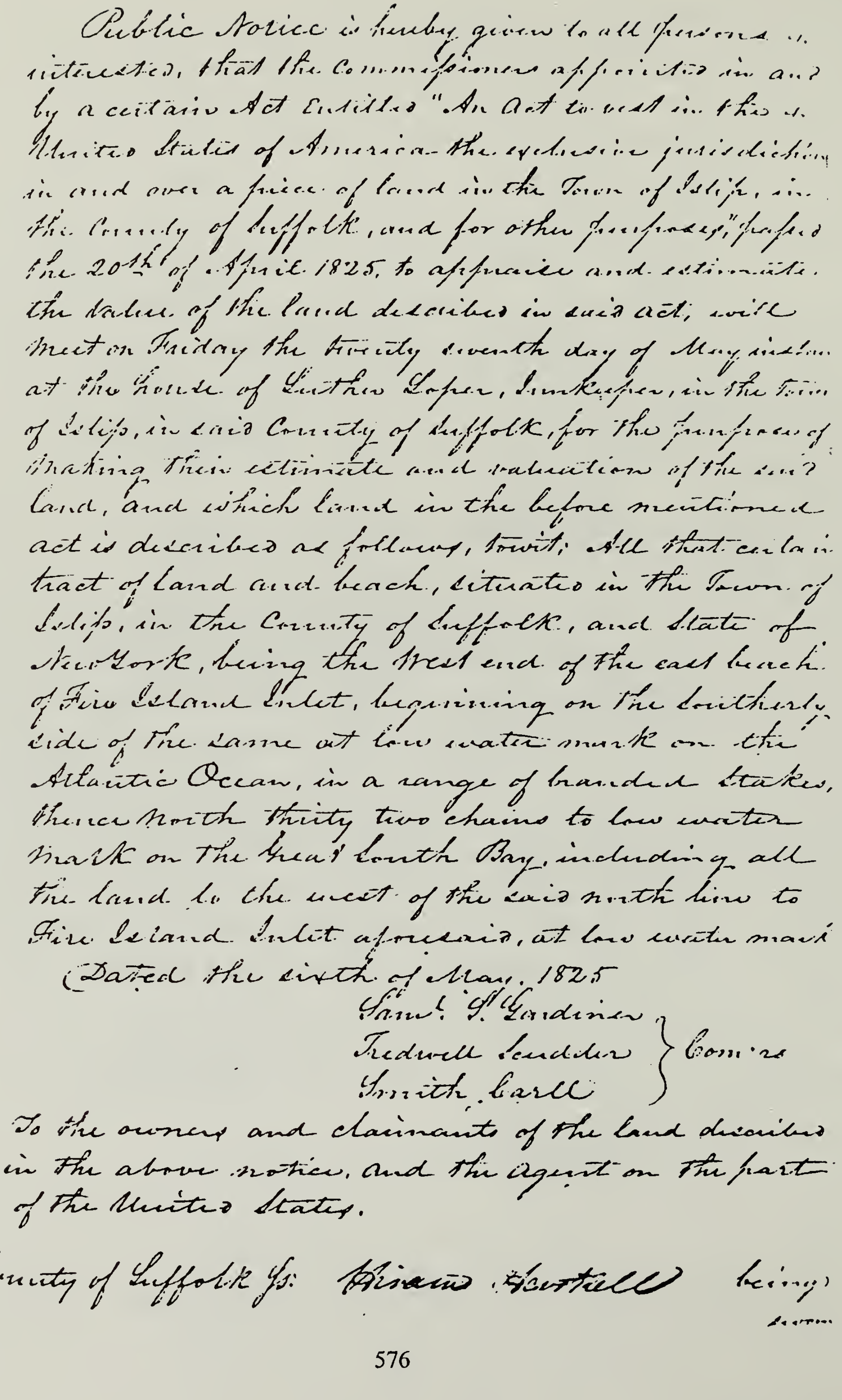
Sworn this 9th day
of May 1825 before

J. Tredwell Scudder
Smith Carll

Eliphalet Mowbray Justice

County of Suffolk ss: Hiram Hartall being

APPENDIX B2.



Public Notice is hereby given to all persons interested, that the Commissioners appointed in and by a certain Act Entitled "An Act to vest in the United States of America the exclusive jurisdiction in and over a piece of land in the Town of Islip, in the County of Suffolk, and for other purposes," passed the 20th of April 1825, to appraise and estimate the value of the land described in said act, will meet on Friday the twenty seventh day of May instant at the house of Luther Loper, Innkeeper, in the Town of Islip, in said County of Suffolk, for the purpose of making their estimate and valuation of the said land, and which land in the before mentioned act is described as follows, towit; All that certain tract of land and beach, situated in the Town of Islip, in the County of Suffolk, and State of New York, being the West end of the east beach of Fire Island Inlet, beginning on the southerly side of the same at low water mark on the Atlantic Ocean, in a range of branded stakes, thence North thirty two chains to low water mark on the Great South Bay, including all the land to the west of the said north line to Fire Island Inlet aforesaid, at low water mark

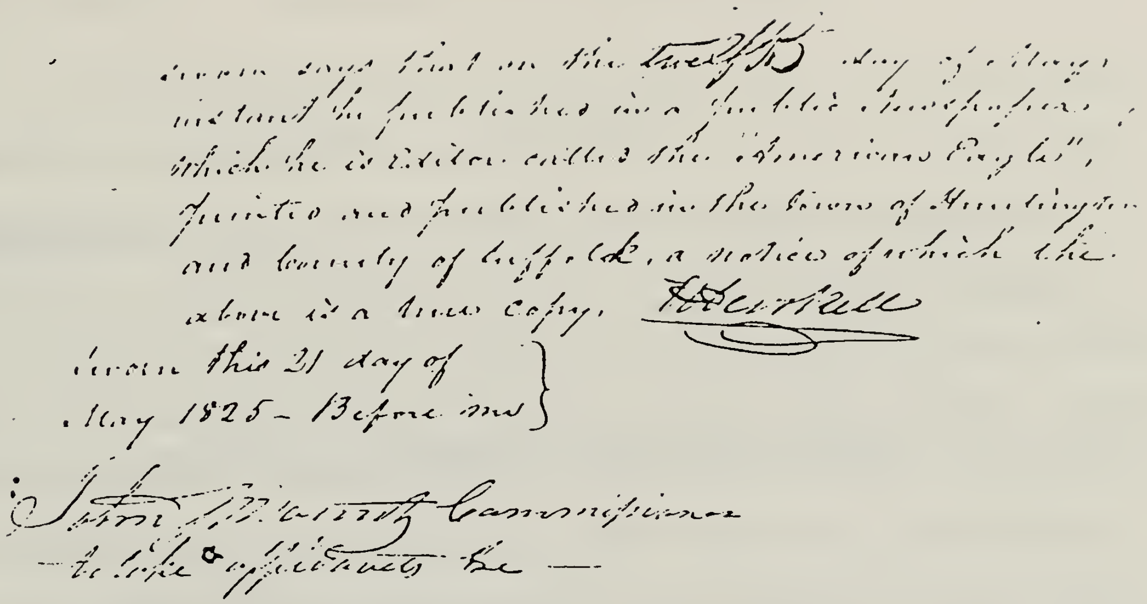
Dated the sixth of May, 1825

Saml. S. Gardiner
Tredwell Scudder } Com:rs
Smith Carll

To the owners and claimants of the land described in the above notice, and the agent on the part of the United States.

County of Suffolk ss: Hiram Hartall being sworn

APPENDIX B2.



sworn says that on the twelfth day of May
instant he published in a public newspaper,
which he is editor called the "American Eagle",
printed and published in the town of Huntington
and County of Suffolk, a notice of which the
above is a true copy.

Sworn this 21 day of
May 1825 – Before me }

John [illegible] Commissioner
– to take affidavits &c —

1264E

DEPARTMENT OF COMMERCE

Washington, December 24, *19*20.

I hereby certify *that the annexed is a true copy of* ~~the original~~.

a paper

on file in the office of the Bureau of Lighthouses, Washington, D. C.

Commissioner of Lighthouses.
(OFFICIAL TITLE.)

OFFICE OF THE SECRETARY

I hereby certify *that* G. R. Putnam

who signed the foregoing certificate, is now, and was at the time of signing,

Commissioner of Lighthouses

and that full faith and credit should be given his certification as such.

In witness whereof, *I have hereunto subscribed my name, and caused the seal of the Department of Commerce to be affixed this* 27th *day of* December, *one thousand nine hundred and* twenty.

Acting *Secretary of Commerce.*

11—1920

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

O. COPY.

TO ALL TO WHOM THESE PRESENTS shall come - send Greeting: Whereas by an Act of the Legislature of the State of New York entitled an "Act to vest in the United States of America the exclusive jurisdiction in and over a piece of land in the Town of Islip in the County of Suffolk and for other purposes passed April 20th, 1825 reciting that by an Act of the Congress of the United States of America passed at the last session thereof a Light House is directed to be built near Fire Island Inlet on the South Side of Long Island in the County of Suffolk and that it appears by the memorial of the authorised agent of the Government of the said United States that a suitable piece of land had been designated by him for the purpose aforesaid which land having been thrown up and formed by the motion of the sea and the setting of the currents doubts are entertained as to the validity of the title to the same of those who are the proprietors of the adjoining land. And that it appears meet and proper that the land should be ceded to the United States on payment of the value thereof to those who may be found to have title to the same. And enacting that the jurisdiction in and over all that certain tract of land and beach situated in the Town of Islip, in the County of Suffolk and State of New York being the West End of the East Beach of Fire Island Inlet beginning on the southerly side of the same at low water mark on the Atlantic Ocean in a range of branded stakes thence north thirty-two chains to low water mark on the Great South Bay including all the land to the West of the said North line to Fire

Island Inlet aforesaid at low water mark be and the same was by said act ceded to the United States of America for the purpose of erecting a Light-House on the same. And further enacting that Tredwell Scudder and Smith Carll Esquires of the County of Suffolk and Samuel S. Gardiner Esquire of the City of New York be and they are were by the said act appointed commissioners to appraise and estimate the value of the land described in said Act and required by the Act of the Congress of the United States of America for the erection of a Light-House on the same in the County of Suffolk. Whose report when made and duly Certified under their hands and seals and filed as of record in the Office of the Assistant Register in Chancery for this State, should be binding and conclusive against the owner or owners of the said land and on all persons whomsoever interested therein. And that on filing the Report of the Commissioners which in and by said Act it is made their duty to do on or before the first day of September next the amount of such appraisement shall be paid on the part of the United States of America to the said Assistant Register and remain in Court subject to the order of the Chancellor. And further enacting that the said Commissioners appointed for the purposes aforesaid before they should proceed to the execution of the duties assigned them by the said Act should take an Oath or affirmation before some Magistrate authorized to administer oaths impartially to execute the trusts reposed in them which oath or affirmation was directed to be attached to and filed with their report of estimate. And the said Commissioners were also directed by the said Act before they proceed to the valuation and estimate of the said lands to give at least fourteen days previous notice by publishing the same in a Newspaper printed in the said County of Suffolk to the owners and claimants of the said land. And also to the Agent or Agents on the part of the United States of the time and place of their meeting for the purpose of making such estimate and valuation of the said land. And further enacting that the said Commissioners should file a duplicate of their report duly acknowledged and proved in the manner required by law for the recording of deeds in the Office of the Clerk of the County of Suffolk whose duty it should be to record the same in the Book of Conveyances etc. for said County. And that the said Commissioners should also file with the said Clerk the Certificate of the Assistant Register in Chancery that the amount of such valuation of the said land had been paid to him as a deposit in the said Court of Chancery agreeably to said Act and that thereupon the United States of America should be entitled to the possession of the said land. Now Know Ye that we Tredwell Scudder Smith Carll and Samuel S. Gardiner the Commissioners named in said Act after having taken the oath required and directed in and by said act A Copy of which Oath is annexed to thisour Report. And after having given at least fourteen days previous notice of the time and place of our meeting as required by said Act which notice was published in a public Newspaper called the American Eagle and printed in the Town of Huntington in the said County of Suffolk a copy of which said notice and also an affidavit of its publication is hereto annexed did meet pursuant to said notice at the House of

Luther Loper on the twenty-seventh day of May Eighteen Hundred and twenty-five for the purpose of appraising and estimating the value of the said land particularly described in the said Act and in this Report. And that we did estimate and appraise the value of the said land as described in the said Act to be Fifty Dollars.

IN WITNESS WHEREOF we have hereunto set our hands and seals this twenty-seventh day of May in the year of our Lord one thousand eight hundred and twenty five.

Signed and sealed in the)
presence of)
Jeremiah Smith)
Henry Brewster)
Suffolk County ss.)

Tredwell Scudder (L.S.)
Smith Carll (L.S.)
Saml.S.Gardiner (L.S.)

On this twenty seventh day of May in the year Eighteen Hundred and Twenty Five personally appeared before me Tredwell Scudder, Smith Carll and Samuel S. Gardiner known to me to be the persons described in and who executed the above Report and they duly acknowledge that they executed the same for the uses and purposes therein mentioned.

Henry Brewster,

Commissioner of Deeds.

City & County of New York ss.

Samuel S. Gardiner one of the Commissioners appointed in and by a certain Act entitled an "ACT to vest in the United States of America the exclusive jurisdiction in and over a piece of land in the Town of Islip in the County of Suffolk & for other purposes" passed April 20th, 1825 to appraise and estimate the value of the land described in said Act being sworn saith that he will impartially execute the trust reposed in him by said Act.

Dated May 4th, 1825.

Sworn this 4th day of May)
1825, before R. Riker.) Saml. S. Gardiner.

County of Suffolk ss.

Tredwell Scudder & Smith Carll of the County of Suffolk two of the Commissioners appointed in and by a certain Act entitled "An Act to vest in the United States of America the exclusive jurisdiction in & over a piece of land in the Town of Islip in the County of Suffolk and for other purposes passed April 20th, 1825 to appraise & estimate the value of the land described in said Act being severally sworn say that they will impartially execute the trust reposed in them by said Act. Dated May 4th, 1825.

Sworn this 9th day of)
May 1825 before) Tredwell Scudder
Eliphalet Mowbay) Smith Carll.
Justice

PUBLIC NOTICE is hereby given to all persons interested that the Commissioners appointed in and by a certain Act entitled "An Act to vest in the United States of America the exclusive jurisdiction in and over a piece of land in the Town of Islip in the County of Suffolk and for other purposes" passed the 20th of April 1825 to appraise and estimate the value of the land described in said Act, will meet on Friday the Twenty seventh day of May instant at the house of Luther Loper, Innkeeper in the Town of Islip in said County of Suffolk and State of New York for the purpose of making their estimate and valuation of the said land and which land in the before mentioned act is described as follows, to wit: All that certain tract of land and beach situated in the town of Islip in the County of Suffolk and State of New York being the West End of the East beach of Fire Island Inlet beginning on the southerly side of the same at low water mark on the Atlantic Ocean in a range of branded stakes, thence north thirty two Chains to Low water mark on the Great South Bay including all the land to the West of the said North line to Fire Island Inlet aforesaid, at low water mark.

Dated the sixth day of May 1825.

Saml. S. Gardiner)
Tredwell Scudder) Commsrs.
Smith Carll)

To the owners and claimants of the land described in the above notice and the Agent on the part of the United States.

County of Suffolk ss.

Hiram Hesskell being sworn says that on the twelfth day of May instant he published in a public Newspaper of which he is Editor called the "American Eagle" printed and published in the Town of Huntington and County of Suffolk a notice of which the above is a true copy.

Sworn the 21st day of May)
1825 before me) Hiram Hesskell.
John S. Mavunt)
Commissioner to take affidavits etc.

I, John L. Lawrence, Assistant Register of the Court of Chancery do hereby certify that Jonathan Thompson Collector for the Port of New York has this day on the part of the United States paid to methe sum of Fifty Dollars as a Deposit in the said Court of Chancery it being the amount of the appraisement and valuation of a piece of land described in a certain Act of the Legislature of the State of New York entitled. "An Act to vest in the United States of America the exclusive jurisdiction in and over a piece of land in the Town of Islip in the County of Suffolk and for other purposes" passed April 20th, 1825 and required by the Act of the Congress of the United States of America for the erection of a Light-House on the same, which appraisement and valuation was made by Tredwell Scudder, Smith Carll and Samuel S. Gardiner, Commissioners appointed for that Purpose under the said Act. And the said Commissioners have this day filed in my office their report as directed by said Act.

Dated New York May 31st, 1825.

John L. Lawrence
(Duplicate) Assistant Register.

Suffolk County)
Clerk's Office.) ss. I, James B. Cooper Clerk of said County do hereby Certify that the foregoing are true Copies of the Report of Commissioners ofappraisement, Affidavits, Public Notice and Receipt of the Assistant Register in Chancery which were filed in my office on the 9th day of June 1825 and that the same are true copies of such papers and of the whole thereof. And I also Certify that said Report was Recorded in my office on the 12th day of October 1854 at 2 o'clock P.M. in Liber 80 of Conveyances page 67 etc.

IN TESTIMONY WHEREOF I have hereunto set my hand and seal of office this 30th day of November 1854.

James B. Cooper.
Clk.

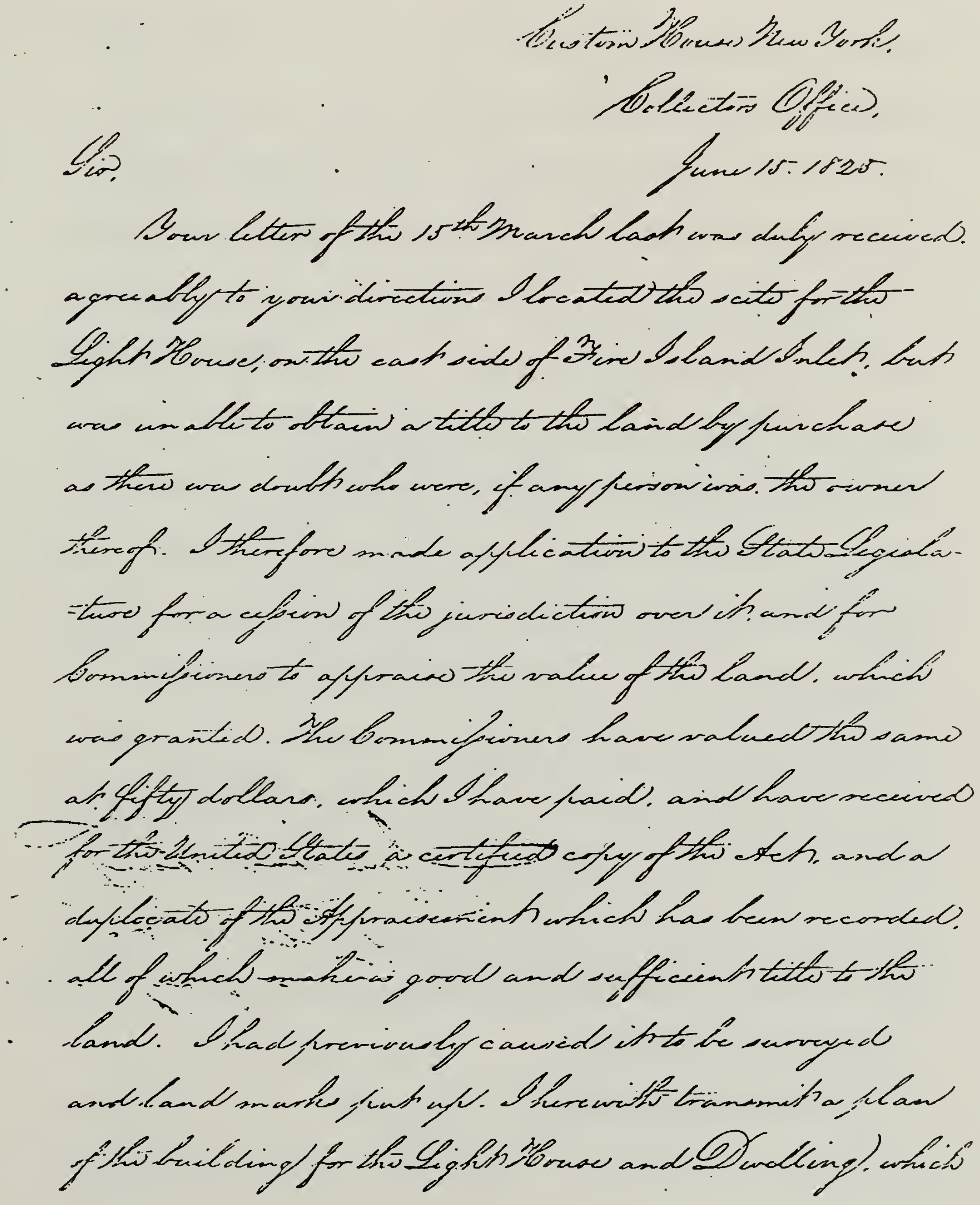
X---------X
:Suffolk:
: SEAL:
:County:
X---------X

(Recd Dec. 11/54)
$1.25 fees
N.Y. Fire Island- title to Light-house Site.
Recorded Contract Book No. 1 Page 396, Lt. Ho.Bd.
New York files 40
Enclosure d.

Office of the Superintendent of Lighthouses, 3rd District,
AN:SS Tompkinsville, N.Y. December 14th, 1920.

I hereby certify that the above is a true copy of the copy of the title papers on file in this office.

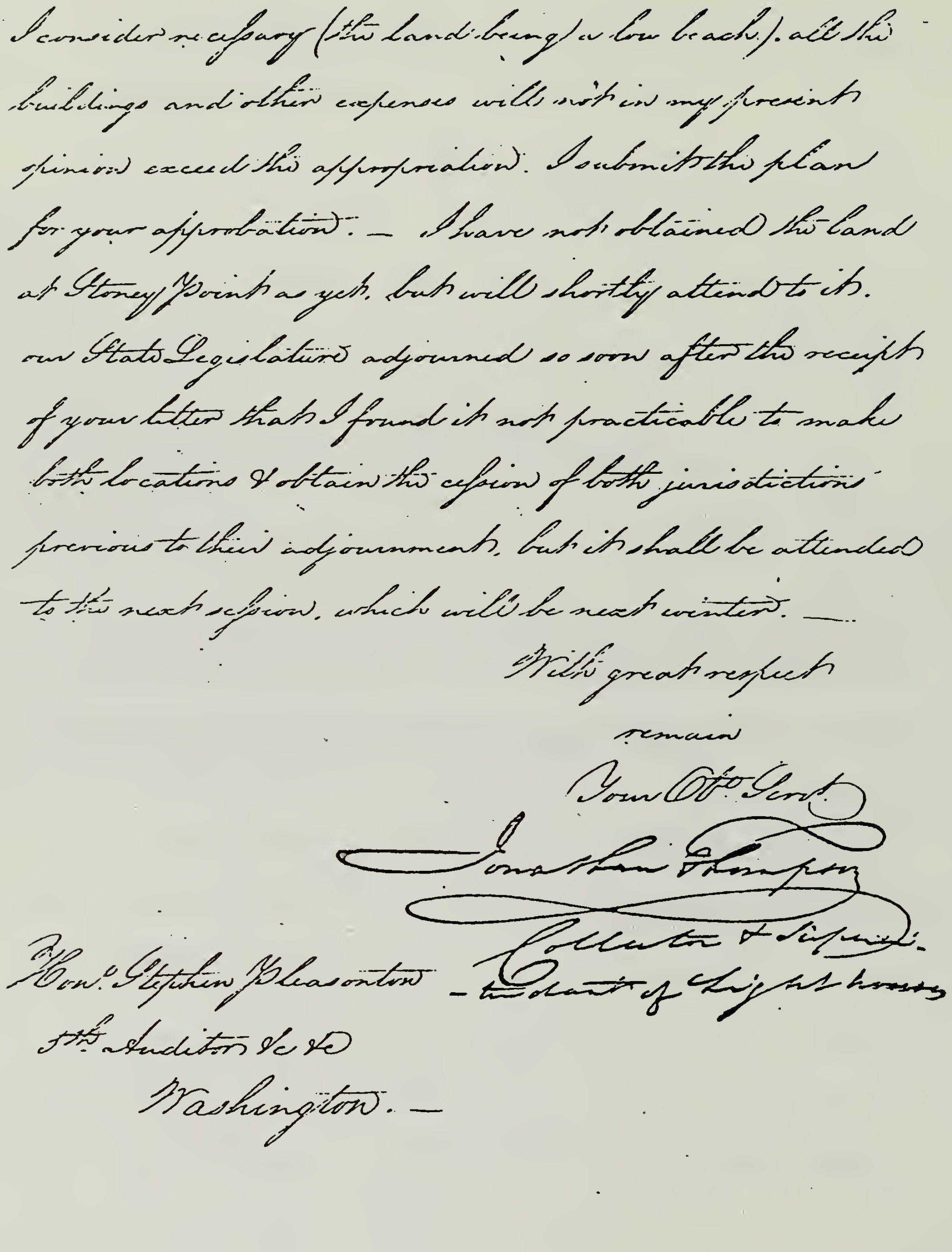
Superintendent of Lighthouses,
3rd District.



Custom House New York,
Collectors Office,
Sir, June 15. 1825.

Your letter of the 15th March last was duly received. agreeably to your directions I located the scite for the Light House, on the east side of Fire Island Inlet, but was unable to obtain a title to the land by purchase as there was doubt who were, if any person was the owner thereof. I therefore made application to the State Legislature for a ceſsion of the jurisdiction over it, and for Commiſsioners to appraise the value of the land, which was granted. The Commiſsioners have valued the same at fifty dollars, which I have paid, and have received for the United States a certified copy of the Act, and a duplicate of the Appraisement which has been recorded, all of which makes a good and sufficient title to the land. I had previously caused it to be surveyed and land marks put up. I herewith transmit a plan of the building for the Light House and Dwelling, which

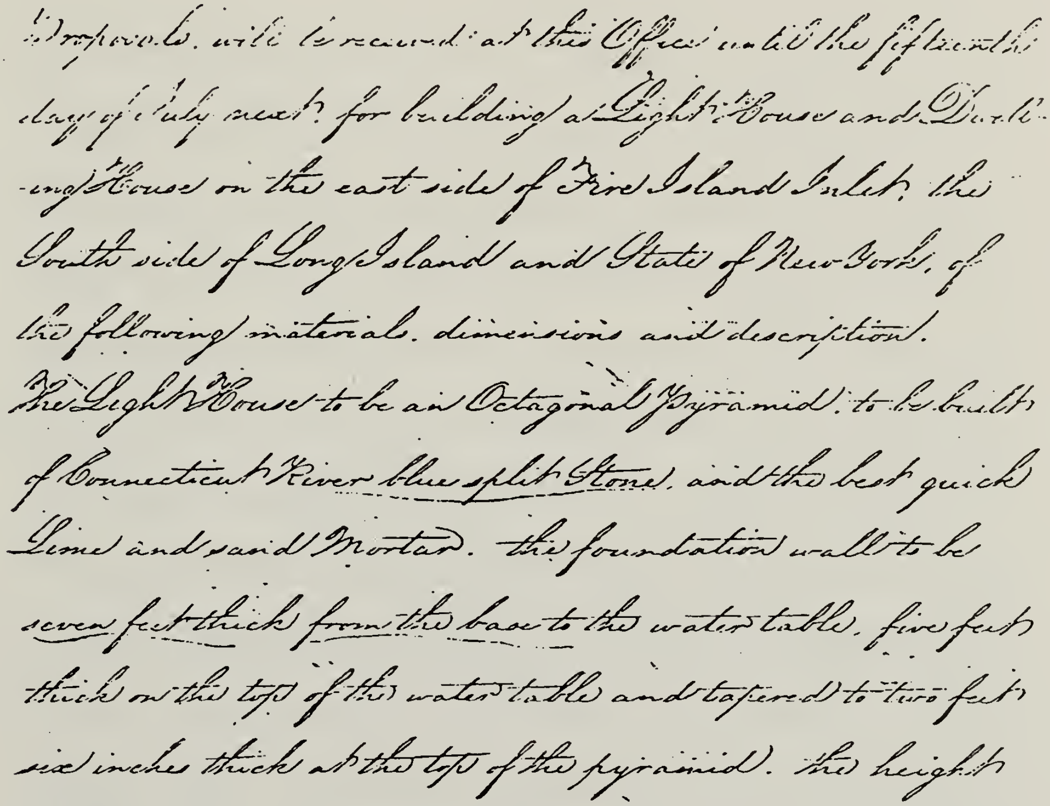
National Archives RG 26
Box #19
Letters of the Light House Superintendent, New York, 1821-1829.



I consider necessary (the land being) a low beach). all the buildings and other expenses will not in my present opinion exceed the appropriation. I submit the plan for your approbation. — I have not obtained the land at Stoney Point as yet. but will shortly attend to it. our State Legislature adjourned so soon after the receipt of your letter that I found it not practicable to make both locations & obtain the cession of both jurisdictions previous to their adjournment. but it shall be attended to the next session. which will be next winter. —

With great respect
remain
Your Obt. Servt.
Jonathan Thompson
Collector & Superin-
-tendant of Light houses

Hon. Stephen Pleasonton
5th. Auditor &c &c
Washington. —



Proposals will be received at this Office until the fifteenth day of July next, for building a Light House and Dwelling House on the east side of Fire Island Inlet, the South side of Long Island and State of New York, of the following materials, dimensions and description.

The Light House to be an Octagonal Pyramid, to be built of Connecticut River blue split Stone, and the best quick Lime and sand Mortar. the foundation wall to be seven feet thick from the base to the water table, five feet thick on the top of the water table and tapered to two feet six inches thick at the top of the pyramid. the height of the building to be seventy four feet above the water table to bottom of the Lantern, thirty two feet diameter at the water table, and sixteen feet diameter at the top of the pyramid. the foundation to be layers of square timber thirty four feet in length, placed transversely six feet below the surface, and the water table to be three feet above the surface. - the water table to be of hewn stone sloping at the top. a strong and substantial

2

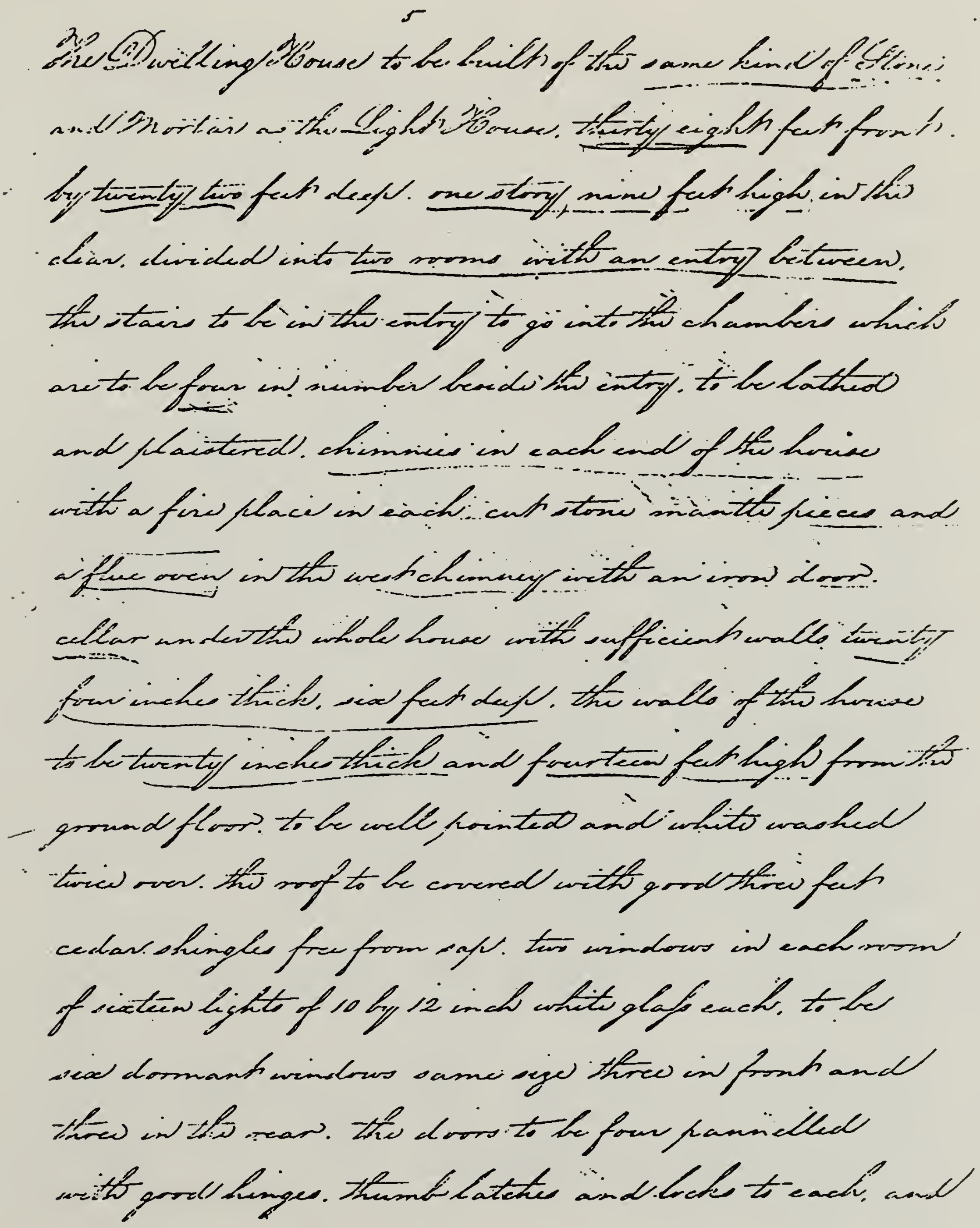
pannelled door, three feet wide and lock thereon hung upon strong hinges well secured in the wall in the first story, the flooring of which to be paved with large flat stone at the water table, the stories not to be more than nine nor leſs than seven feet in the clear. the floorings to be supported with strong sound timber and floored with 1½ inch plank grooved together. the stairs to be of easy ascent and made substantially of plank and railed. six windows in the tower, three of which on the west and three on the east side with durable window frames and sashes. the sashes to be glazed with glaſs 10 by 12 inches of double thickneſs, four panes in each sash and two sashes to the window. the top of the tower to be arched over leaving a scuttle on one side of two feet three inches by three feet three inches in the clear. an Iron frame around the same and a door framed with iron, and covered with copper. leaving also a well with an iron frame about two feet square. which is to be left in all the floorings. to have a cut stone cornice of large stone

3

projecting) six inches over the top of the wall of the pyra
on which wall and arch a cut stone deck of four inches
thick is to be laid. and the stones secured together wi
iron clamps: the joints of stone and clamps to be filled
with lead: a complete iron lantern octagon form the
of which to be of wrought iron to be two and a half inches
square to run six feet into the stone work and to be
secured with eight large iron anchors. the lantern to
twelve feet diameter and the posts seven feet in heigh
above the platform of the pyramid on which it is to re
to be well braced and secured above with iron. the sp
between the posts at the angles to be occupied by the sa
which are to be of iron. moulded on the inside struck
solid. and of sufficient strength so as not to work wi
the wind. each sash to be glazed with white plate g
ten by twelve inches and one fifth of an inch in thick
on the west side part of the sash is to be hung and fi
as a door to go out on the platform. the lantern to be
surrounded by an iron ballustrade three feet high. a

4

rail or rod to be three quarters of an inch square, which is to be securely braced. the top of the lantern is to be a dome four feet high water tight and covered with copper thirty two ounces to the square foot. formed by sixteen iron rafters concentrating in an iron hoop at the top. which forms the funnel for the smoke to paſs out of the lantern into the ventilator made of copper in the form of a ball sufficient to contain forty gallons. and large enough to secure the funnel against rain. the ventilator to be turned by a large vane. so that the hole for venting the smoke may always be to leeward. the lantern and ballustrade to be covered with three coats of black paint the door, sashes, window frames &c to be well painted with two coats of paint and the building to be well pointed and white washed twice over and furnished with two complete electrical rods with points to each. and in every other respect to be completely built with the best materials and workmanship.



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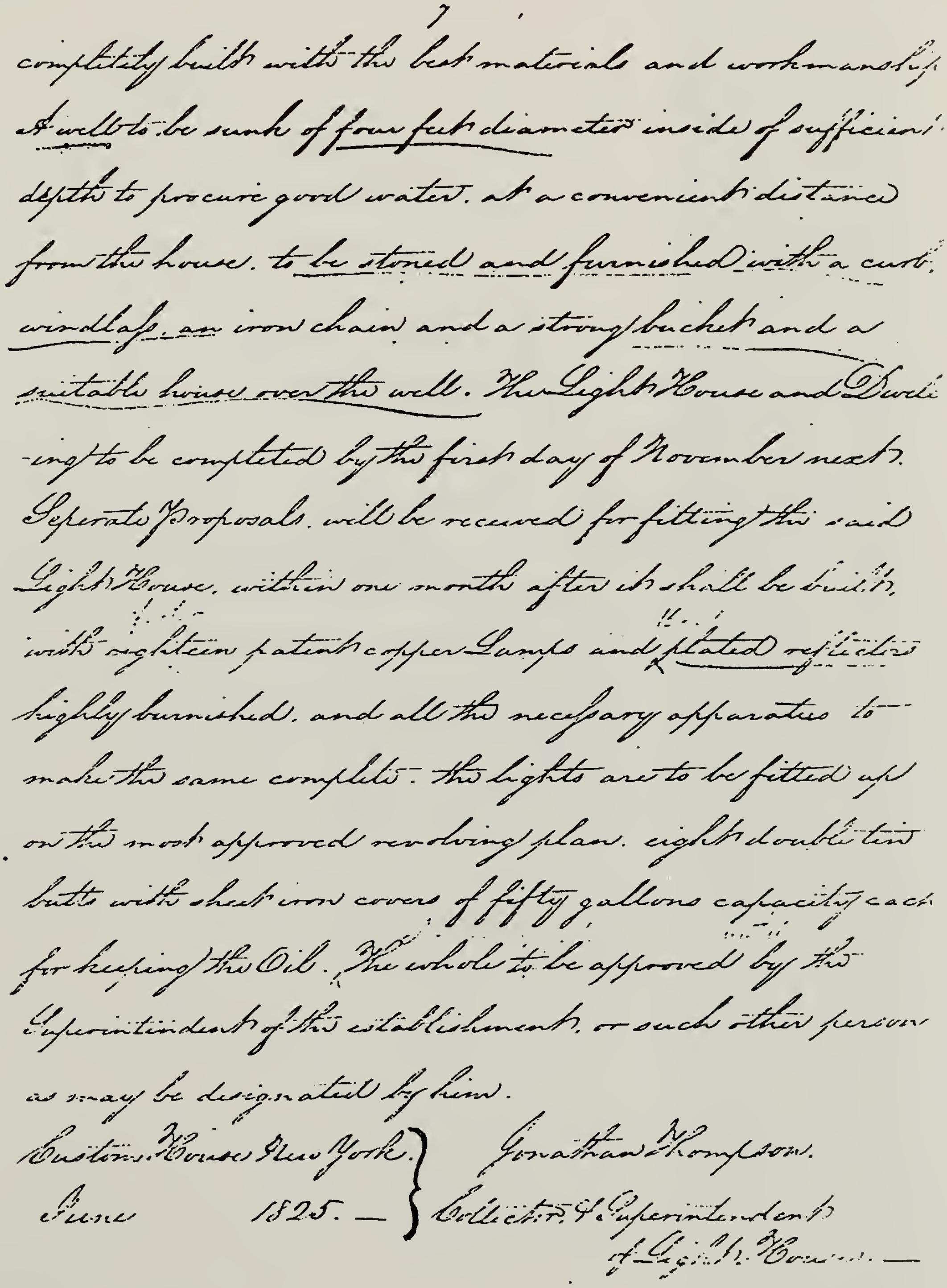
The Dwelling House to be built of the same kind of Stone
and Mortar as the Light House. thirty eight feet front
by twenty two feet deep. one story nine feet high in the
clear. divided into two rooms with an entry between.
the stairs to be in the entry to go into the chambers which
are to be four in number beside the entry. to be lathed
and plaistered. chimnies in each end of the house
with a fire place in each. cut stone mantle pieces and
a flue oven in the west chimney with an iron door.
cellar under the whole house with sufficient walls twenty
four inches thick. six feet deep. the walls of the house
to be twenty inches thick and fourteen feet high from the
ground floor. to be well pointed and white washed
twice over. the roof to be covered with good three feet
cedar shingles free from sap. two windows in each room
of sixteen lights of 10 by 12 inch white glaſs each. to be
six dormant windows same size three in front and
three in the rear. the doors to be four pannelled
with good hinges. thumb latches and locks to each. and

a strong lock on the front door. inside folding shutters and fastenings to the lower windows. a pantry and closets between the lower rooms and a window in the pantry of the same size and fastenings as the others. all the inside walls and ceilings to be lathed and plaistered and all the inside work to be finished in a plain decent style with good seasoned timber. the front door to be three feet wide. a door from the west room or kitchen of similar width. the trimmers and trimmed beams to be 4 by 10 inches 20 feet long. the upper beams 20 feet long 3 by 10 inches. beams to be 23 inches from centre to centre rafters 13 feet 9 inches long. all to be of good sound white pine. three cellar windows with gratings, an outside cellar door and fastening and stone steps. inside cellar plank steps under the stair case. the window frames, sashes. doors. and all the wood work to have two coats of good white paint. gutters to be under the roof and leaders therefrom. the floors to be of good white pine plank. planed grooved and well nailed. and in every other respect to be



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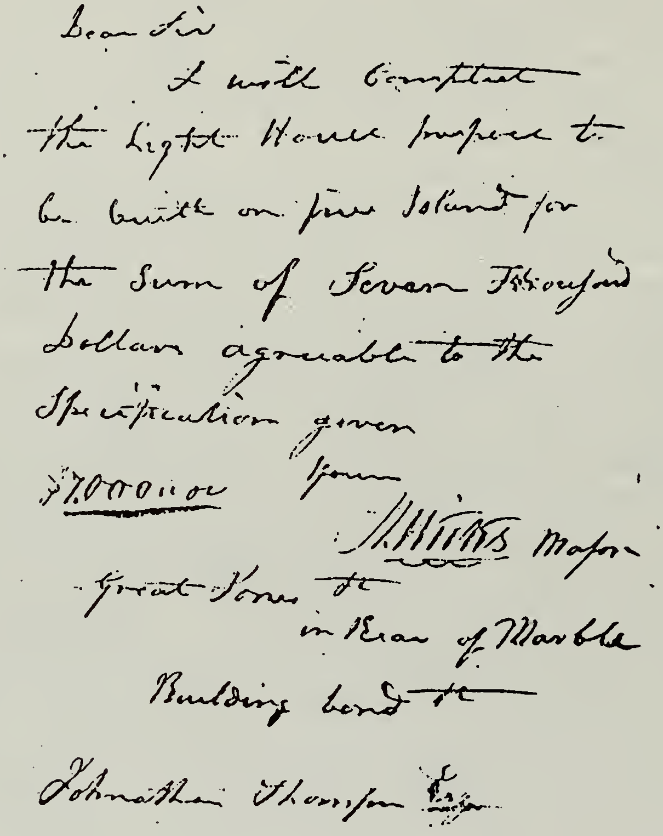
completely built with the best materials and workmanship A well to be sunk of four feet diameter inside of sufficient depth to procure good water. at a convenient distance from the house. to be stoned and furnished with a curb. windlass. an iron chain and a strong bucket and a suitable house over the well. The Light House and Dwelling to be completed by the first day of November next.

Seperate Proposals. will be received for fitting the said Light House. within one month after it shall be built. with eighteen patent copper Lamps and plated reflectors highly burnished. and all the necessary apparatus to make the same complete. the lights are to be fitted up on the most approved revolving plan. eight double tin butts with sheet iron covers of fifty gallons capacity each for keeping the Oil. The whole to be approved by the Superintendent of the establishment. or such other person as may be designated by him.

Custom House New York. } Jonathan Thompson.
June 1825. — } Collector & Superintendent
of Light Houses. —



Dear Sir

I will Contract
the Light House propose to
be built on fire Island for
the Sum of Seven Thousand
Dollars agreeable to the
Specification given

$7000.00 Yours

M. Wicks Mason

Great Jones St
in Rear of Marble
Building Bond St

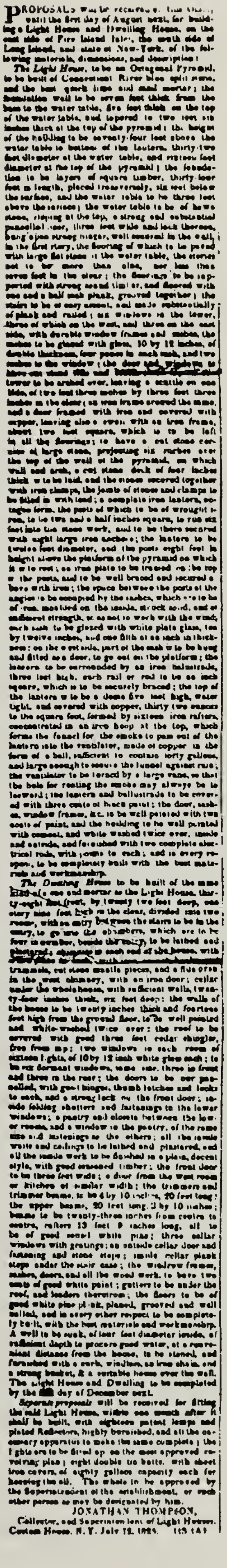
Johnathan Thompson Esqr

APPENDIX B5.

with iron cranes, hooks and

RG 26
U.S.C.G.
Lighthouse Sites
Old Lighthouse Records
Advertisements for Proposals
1812-1847

July 12th, 1825
Proposal for Light House on
Fire Island Inlet - 74 feet



PROPOSALS will be received at this Office, until the first day of August next, for building a Light House and Dwelling House, on the east side of Fire Island Inlet, the south side of Long Island, and state of New-York, of the following materials, dimensions, and description:

The Light House, to be an Octagonal Pyramid, to be built of Connecticut River blue split stone, and the best quick lime and sand mortar; the foundation wall to be seven feet thick from the base to the water table, five feet thick on the top of the water table, and tapered to two feet six inches thick at the top of the pyramid; the height of the building to be seventy-four feet above the water table to bottom of the lantern, thirty-two feet diameter at the water table, and sixteen feet diameter at the top of the pyramid; the foundation to be layers of square timber, thirty-four feet in length, placed transversely, six feet below the surface, and the water table to be three feet above the surface; the water table to be of hewn stone, sloping at the top, a strong and substantial panelled door, three feet wide and lock thereon, hung upon strong hinges, well secured in the wall, in the first story, the flooring of which to be paved with large flat stone at the water table, the stories not to be more than nine, nor less than seven feet in the clear; the floorings to be supported with strong sound timber, and floored with one and a half inch plank, grooved together; the stairs to be of easy ascent, and made substantially of plank and railed; six windows in the tower, three of which on the west, and three on the east side, with durable window frames and sashes, the sashes to be glazed with glass, 10 by 12 inches, of double thickness, four panes in each sash, and two sashes to the window; the door and windows to have cut stone sills and [illegible] tower to be arched over, leaving a scuttle on one side, of two feet three inches by three feet three inches in the clear; an iron frame around the same, and a door framed with iron and covered with copper, leaving also a scuttle with an iron frame, about two feet square, which is to be left in all the floorings; to have a cut stone cornice of large stone, projecting six inches over the top of the wall of the pyramid, on which wall and arch, a cut stone deck of four inches thick is to be laid, and the stones secured together with iron clamps, the joints of stones and clamps to be filled in with lead; a complete iron lantern, octagon form, the posts of which to be of wrought iron, to be two and a half inches square, to run six feet into the stone work, and to be there secured with eight large iron anchors; the lantern to be twelve feet diameter, and the posts eight feet in height above the platform of the pyramid on which it is to rest; an iron plate to be framed on the top of the posts, and to be well braced and secured above with iron; the space between the posts at the angles to be occupied by the sashes, which are to be of iron, moulded on the inside, struck solid, and of sufficient strength, so as not to work with the wind; each sash to be glazed with white plate glass, ten by twelve inches, and one fifth of an inch in thickness; on the outside, part of the sash is to be hung and fitted as a door, to go out on the platform; the lantern to be surrounded by an iron balustrade, three feet high, each rail or rod to be an inch square, which is to be securely braced; the top of the lantern is to be a dome five feet high, water tight, and covered with copper, thirty two ounces to the square foot, formed by sixteen iron rafters, concentrated in an iron hoop at the top, which forms the funnel for the smoke to pass out of the lantern into the ventilator, made of copper in the form of a ball, sufficient to contain forty gallons, and large enough to secure the funnel against rain; the ventilator to be turned by a large vane, so that the hole for venting the smoke may always be to leeward; the lantern and ballustrade to be covered with three coats of black paint; the door, sashes, window frames, &c. to be well painted with two coats of paint, and the building to be well pointed with cement, and white washed twice over, inside and outside, and furnished with two complete electrical rods, with points to each; and in every respect, to be completely built with the best materials and workmanship.

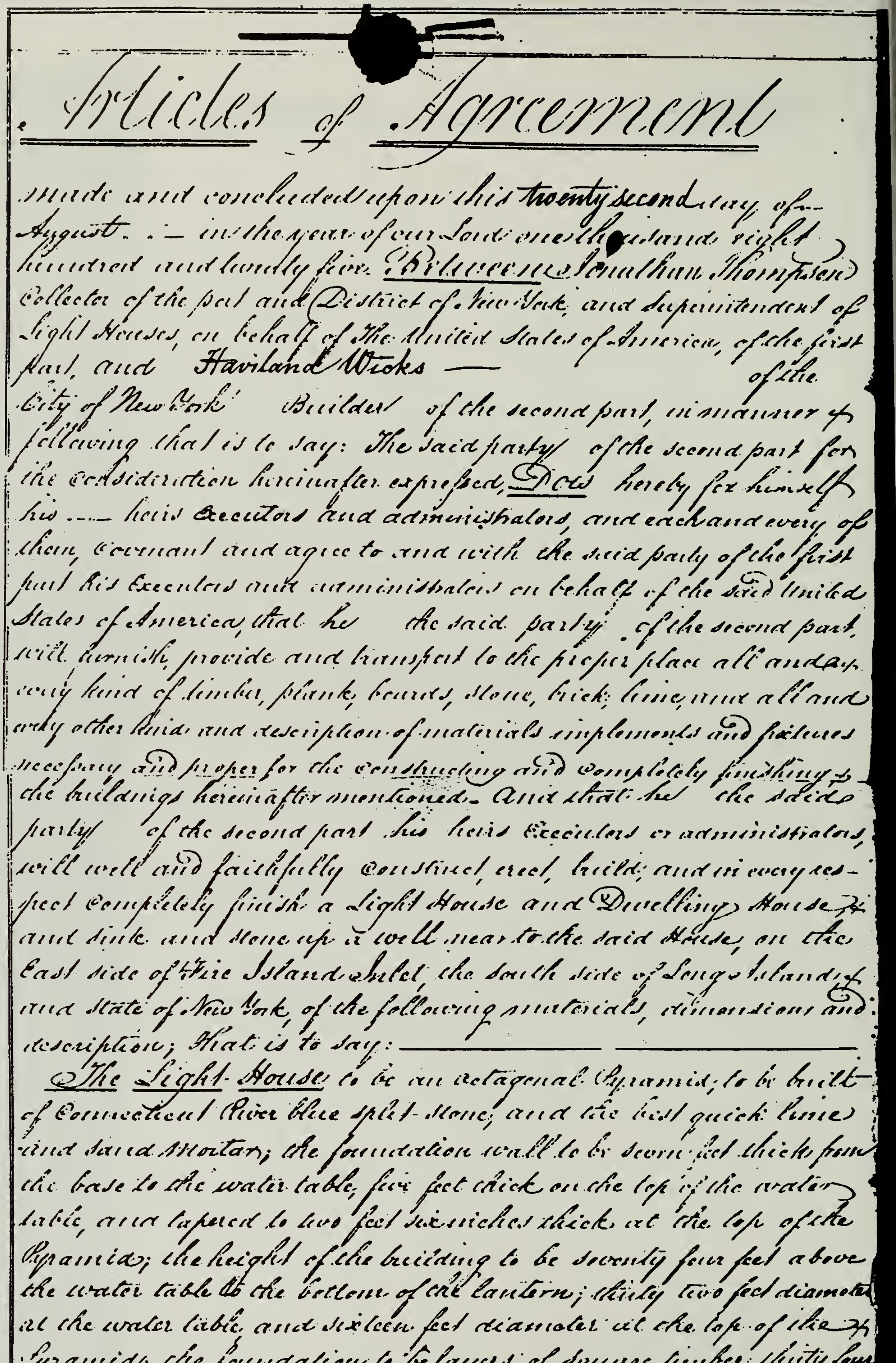
The Dwelling House to be built of the same kind of stone and mortar as the Light House, thirty-eight feet front, by twenty two feet deep, one story nine feet high in the clear, divided into two rooms, with an entry between, the stairs to be in the entry, to go into the chambers, which are to be four in number, beside the entry, to be lathed and plastered; chimneys in each end of the house, with [illegible] trammels, cut stone mantle pieces, and a flue oven in the west chimney, with an iron door; cellar under the whole house, with sufficient walls, twenty-four inches thick, six feet deep; the walls of the house to be twenty inches thick and fourteen feet high from the ground floor, to be well pointed and white-washed twice over; the roof to be covered with good three feet cedar shingles, free from sap; two windows in each room of sixteen lights, of 10 by 12 inch white glass each; to be six dormant windows, same size, three in front and three in the rear; the doors to be four panelled, with good hinges, thumb latches and locks to each, and a strong lock on the front door; inside folding shutters and fastenings to the lower windows; a pantry and closets between the lower rooms, and a window in the pantry, of the same size and fastenings as the others; all the inside walls and ceilings to be lathed and plastered, and all the inside work to be finished in a plain, decent style, with good seasoned timber; the front door to be three feet wide; a door from the west room or kitchen of similar width; the trimmers and trimmer beams, to be 4 by 10 inches, 20 feet long; the upper beams, 20 feet long, 3 by 10 inches; beams to be twenty-three inches from centre to centre, rafters 13 feet 9 inches long, all to be of good sound white pine; three cellar windows with gratings; an outside cellar door and fastening and stone steps; inside cellar plank steps under the stair case; the window frames, sashes, doors, and all the wood work, to have two coats of good white paint; gutters to be under the roof, and leaders therefrom; the floors to be of good white pine plank, planed, grooved and well nailed, and in every other respect to be completely built, with the best materials and workmanship. A well to be sunk, of four feet diameter inside, of sufficient depth to procure good water, at a convenient distance from the house, to be stoned, and furnished with a curb, windlass, an iron chain, and a strong bucket, & a suitable house over the well. The Light House and Dwelling to be completed by the [illegible] day of December next.

Separate proposals will be received for fitting the said Light House, within one month after it shall be built, with eighteen patent lamps and plated Reflectors, highly burnished, and all the necessary apparatus to make the same complete; the lights are to be fixed up on the most approved revolving plan; eight double tin butts, with sheet iron covers, of eighty gallons capacity each for keeping the oil. The whole to be approved by the Superintendent of the establishment, or such other person as may be designated by him.

JONATHAN THOMPSON,
Collector, and Superintendent of Light Houses.
Custom House, N. Y. July 12, 1825. [illegible]

APPENDIX B6.

RG 26
Specifications: Contract dated
August 22, 1825, with Haviland Wicks for
the erection of the Fire Island Light...



Articles of Agreement

made and concluded upon this twenty second day of August — in the year of our Lord one thousand eight hundred and twenty five. Between Jonathan Thompson Collector of the Port and District of New York, and Superintendent of Light Houses, on behalf of The United States of America, of the first part, and Haviland Wicks — of the City of New York Builder of the second part, in manner & following that is to say: The said party of the second part for the consideration hereinafter expressed, Does hereby for himself his — heirs Executors and administrators, and each and every of them, covenant and agree to and with the said party of the first part his Executors and administrators on behalf of the said United States of America, that he the said party of the second part, will furnish, provide and transport to the proper place all and every kind of timber, plank, boards, stone, brick, lime, and all and every other kind and description of materials implements and fixtures necessary and proper for the constructing and completely finishing the buildings hereinafter mentioned. And that he the said party of the second part his heirs Executors or administrators, will well and faithfully construct, erect, build, and in every respect completely finish a Light House and Dwelling House and sink and stone up a well near to the said House, on the East side of Fire Island Inlet, the south side of Long Island and State of New York, of the following materials, dimensions and description; That is to say: ——

The Light-House to be an octagonal Pyramid; to be built of Connecticut River blue split-stone, and the best quick lime and sand Mortar; the foundation wall to be seven feet thick from the base to the water table, five feet thick on the top of the water table, and tapered to two feet six inches thick at the top of the Pyramid; the height of the building to be seventy four feet above the water table to the bottom of the lantern; thirty two feet diameter at the water table and sixteen feet diameter at the top of the Pyramid; the foundation to be layers of square timber, thirty four feet in length, placed transversely, six feet below the surface, and the water table to be three feet above the surface; the water table to be of hewn stone, sloping at the top; a strong and substantial pannelled door, three feet wide, and lock thereon, hung upon strong hinges well secured in the wall; in the first story, the flooring of which to be paved with large flat stone at the water Tables; the stories not to be more than nine nor less than seven feet in the clear; the floorings to be supported with strong sound timber, and floored with one and a half inch plank grooved together; the stairs to be of easy ascent, and made substantially of plank and nailed; six windows in the tower, three of which on the west, and three on the east side, with durable window frames and sashes, the sashes to be glazed with glass ten by twelve inches of double thickness, four panes in each sash, and two sashes to the window; the door and windows to have cut stone sills and lintels; the top of the tower to be arched over, leaving a Scuttle on one side of two feet three inches by three feet three inches in the clear; an iron frame around the same, and a door framed with iron and covered with Copper, leaving also a well with an iron frame about two feet square, which is to be left in all the floorings; to have a Cut Stone Cornice of large stone, projecting six inches over the top of the wall of the Pyramid, on which wall and arch, a Cut Stone deck of four inches thick is to be laid and the Stones secured together with iron Clamps, the joints of stones and clamps, to be filled in with lead; a Complete iron lantern, Octagon form the posts of which to be of wrought iron to be two and a half inches square, to run six feet into the Stone work, and to be there secured with eight large iron anchors; the lantern to be twelve feet diameter, and the posts eight feet in height above the platform of the Pyramid on which it is to rest; an iron plate to be framed on the top of the Posts, and to be well braced and secured above with iron; the space between the posts at the angles to be occupied by the sashes which are to be of iron moulded on the inside, struck solid, and of sufficient strength, so as not to work with the wind; each sash to be glazed with white plate glass, ten by twelve inches, and one fifth of an inch in thickness; on the west side, part of the sash is to be hung and fitted as a door, to go out on the platform; the lantern to be surrounded by an iron ballustrade, three feet high, each rail a rod to be an inch square, which is to be securely braced; the top of the lantern is to be a dome five feet high, water tight, and covered with copper, thirty two ounces to the square foot, formed by sixteen iron rafters concentrated in an iron hoop at the top, which forms the funnel for the smoke to pass out of the lantern into the ventilator, made of copper in the form of a ball, sufficient to contain forty gallons, and large enough to secure the funnel against rain; the ventilator to be turned by a large vane so that the hole for venting the smoke may always be to leeward, the lantern and balustrade to be covered with three coats of black paint; the door, sashes, window frames &c to be well painted with two coats of paint, and the building to be well pointed with cement and white washed twice over, inside and outside, and furnished with two complete electrical rods, with points to each; and in every respect to be completely built with the best materials and workmanship.

The Dwelling House to be built of the same kind of Stone and mortar as the Light House, thirty eight feet front, by twenty two feet deep; one story, nine feet high in the clear, divided into two rooms, with an entry between, the Stairs to be in the entry, to go into the chambers, which are to be four in number, besides the entry, to be lathed and plastered; chimnies in each end of the House, with a fire place in each, with iron cranes, hooks and trammels, cut stone mantle pieces, and a flue oven in the west chimney, with an iron door; cellar under the whole House, with sufficient walls, twenty four inches thick, six feet deep; the walls of the House to be twenty inches thick and fourteen feet high from the ground floor, to be well pointed and white washed twice over; the roof to be covered with good three feet cedar shingles, free from sap; two windows in each room of sixteen [illegible] glass each; to be six dormant windows, same size; three in front and three in the rear; the doors to be four pannelled, with good hinges thumb latches and locks to each and a strong lock on the front door; inside folding shutters and fastenings to the lower windows; a pantry and closets between the lower rooms, and a window in the pantry, of the same size and fastenings as the others; all the inside walls and ceilings to be lathed and plastered, and all the inside work to be finished in a plain decent style, with good seasoned timber; the front door to be three feet wide; a door from the west room or kitchen of similar width; the summers and summer beams to be four by ten inches, twenty feet long: the upper beams twenty feet long, three by ten inches; beams to be twenty three inches from centre to centre, rafters thirteen feet & nine inches long; all to be of good sound white pine; three cellar windows with gratings; an outside Cellar door and fastenings and Stone steps; inside Cellar plank steps under the stair case; the window frames, sashes, doors, and all the wood work, to have two coats of good white paint; gutters to be under the roof, & and leaders therefrom; the floors to be of good white pine plank, planed, grooved and well nailed; and in every other respect to be completely built, with the best materials and workmanship.

A Well to be sunk, of four feet diameter inside, of sufficient depth to procure good water, at a convenient distance from the House, to be stoned and furnished with a Curb, Windlaſs, an iron chain and a strong bucket and a suitable House over the well.

And the said party of the second part for himself, his heirs, Executors and administrators Does covenant, promise and agree to and with the said party of the first part on behalf of the said United States, that the said party of the second part will in all things well and faithfully construct, erect, build, and completely finish the said Light House, Dwelling House and well, in manner aforesaid, and ready to be delivered over to the said party of the first part or such person or persons as shall or may be authorised to receive the same, on or before the first day of December next ensuing the date hereof. ———

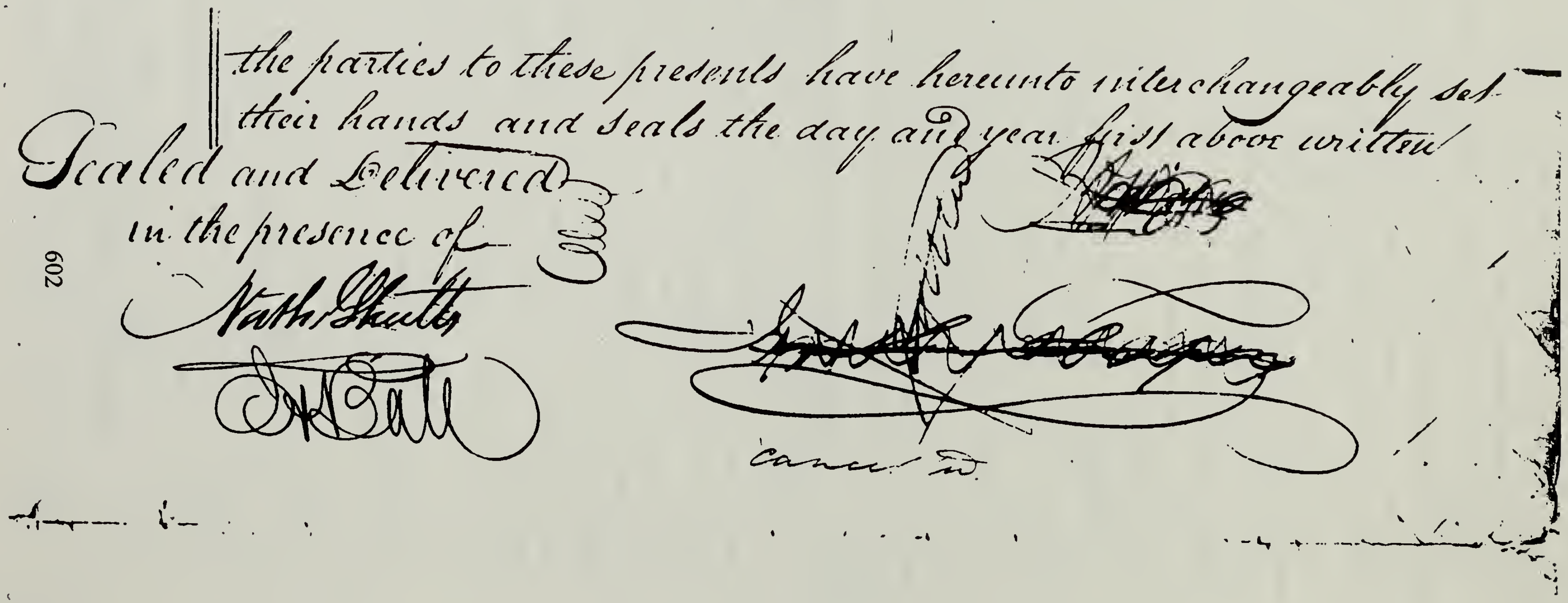
And it is mutually understood and agreed by and between the respective parties to these presents, that the erecting, building and finishing the Light House and Dwelling House aforesaid, and sinking and building the well aforesaid, shall be Conducted and completed under the Inspection and approbation of such person or persons as may be appointed for that purpose by the said party of the first part. ———

And in consideration of [illegible]ull, true, faithful and punctual performance and fulfilm[illegible]t of this contract or agreement, and every thing therein contained and expreſsed on the part and behalf of the said party of the second part, his heirs, executors or administrators to be performed and fulfilled, the said party of the first part, on behalf of the said United States of America, Covenants and agrees to and with the said party of the second part his Executors and administrators that he the said party of the second part shall be paid the full sum of Seven thousand — — — — — Dollars immediately after the aforesaid Buildings shall be in all respects completely finished, agreeably to the purport, true intent and meaning of this Contract or agreement, and shall be approved of by the said party of the first part hereto. ———

Provided that no member of Congreſs shall be admitted to any share or part of this contract or agreement, or to any benefit to arise therefrom.

In witneſs whereof, the

APPENDIX B6.



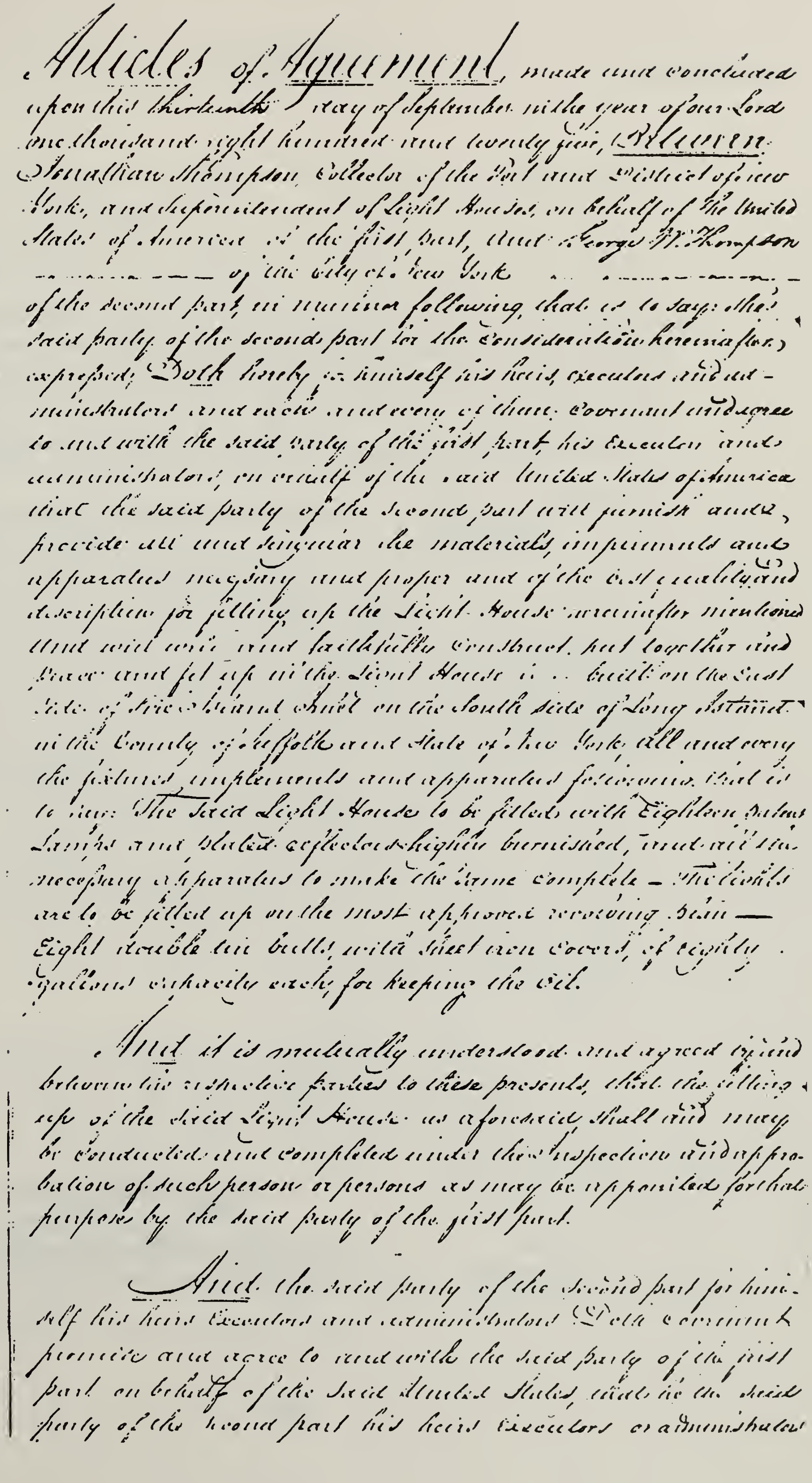
the parties to these presents have hereunto interchangeably set their hands and seals the day and year first above written

Sealed and Delivered
in the presence of
Nathl Shutts
J H Batt

Cancel'd

APPENDIX B7.

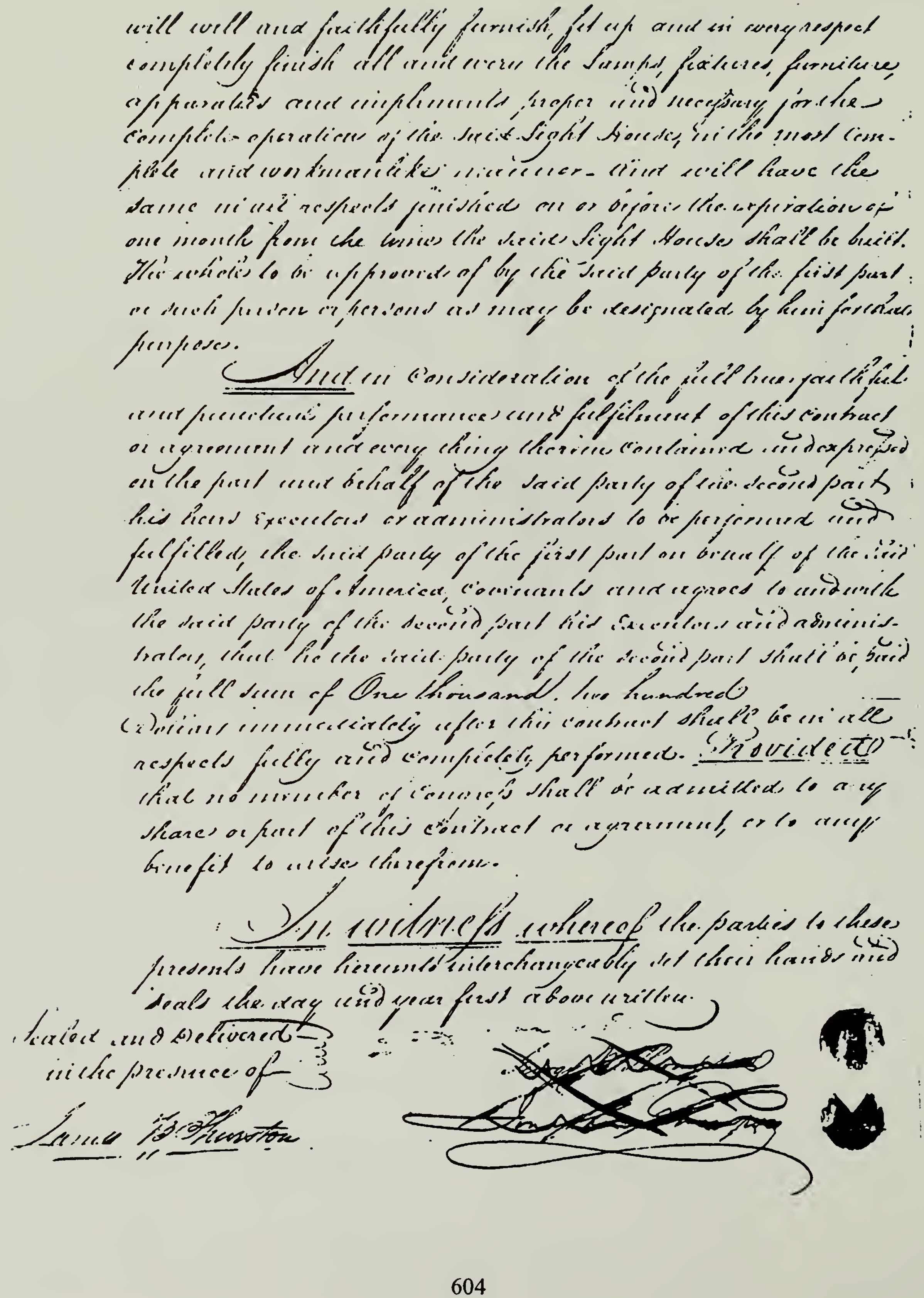
RG 26
Contract dated September 30, 1825, with George W. Thompson for furnishing and outfitting the Fire Island Lighthouse.



Articles of Agreement, made and concluded upon this thirteenth day of September in the year of our Lord one thousand eight hundred and twenty five, Between Jonathan Thompson, Collector of the Port and District of New York, and Superintendent of Light Houses, on behalf of the United States of America of the first part, and George W. Thompson ——— of the City of New York ——— of the second part, in manner following, that is to say: The said party of the second part for the consideration hereinafter expressed, Doth hereby for himself his heirs, executors and administrators and each and every of them, covenant and agree to and with the said party of the first part, his executors and administrators, on behalf of the said United States of America that the said party of the second part will furnish and provide all and singular the materials, implements and apparatus necessary and proper and of the best quality and description for fitting up the Light House hereinafter mentioned and will well and faithfully construct, put together and place and set up in the Light House is [illegible] built on the East Side of Fire Island Inlet on the South side of Long Island in the County of Suffolk and State of New York, all and every the fixtures, implements and apparatus following, that is to say: The said Light House to be fitted with Eighteen patent Lamps and plated reflectors highly burnished, and all the necessary apparatus to make the same complete — The lights are to be fitted up on the most approved revolving plan — Eight double tin butts, with sheet iron covers, of eighty gallons capacity each, for keeping the oil.

And it is mutually understood and agreed by and between the respective parties to these presents, that the fitting up of the said Light House as aforesaid, shall and may be conducted and completed under the inspection and approbation of such person or persons as may be appointed for that purpose by the said party of the first part.

And the said party of the second part for himself his heirs executors and administrators Doth covenant promise and agree to and with the said party of the first part on behalf of the said United States, that he the said party of the second part his heirs executors or administrators



will well and faithfully furnish, fit up and in every respect completely finish all and every the Lamps, fixtures, furniture, apparatus and implements proper and necessary for the complete operation of the said Light House, in the most complete and workmanlike manner. And will have the same in all respects finished on or before the expiration of one month from the time the said Light House shall be built. The whole to be approved of by the said party of the first part or such person or persons as may be designated by him for that purpose.

And in Consideration of the full true faithful and punctual performance and fulfilment of this contract or agreement and every thing therein contained and expressed on the part and behalf of the said party of the second part his heirs Executors or administrators to be performed and fulfilled, the said party of the first part on behalf of the said United States of America, Covenants and agrees to and with the said party of the second part his Executors and administrators, that he the said party of the second part shall be paid the full sum of One thousand, two hundred Dollars immediately after this contract shall be in all respects fully and completely performed. Provided that no member of Congress shall be admitted to any share or part of this contract or agreement, or to any benefit to arise therefrom.

In witness whereof the parties to these presents have hereunto interchangeably set their hands and seals the day and year first above written.

Sealed and Delivered
in the presence of

James B. Thurston

Fire Island Light
July 5th 1853.

Sir,

I have been daily expecting the pleasure of a visit from you, which I have the more desired, since the Light traverses badly - running but a short time before it stops & needs to be started again - This is caused no doubt from the clock requiring cleaning, which I do not understand.

I am entirely out of Whiting & Soap, and have no cleaning towels or muslin for cleaning the glasses - only as I find them myself.

There are but fourteen spare chimnies on hand which as you will be aware is a small stock -

Hoping soon to see or hear from you.

I remain
Very respectfully
Sir
your obedt sert.
Benjamin Smith

To A. Ludlow Case Engr.
Inspector of Lights &c. 3rd District
New York.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to the Inspector - 1854.

APPENDIX B9.

Fire Island Light
5th September 1853

Sir,

I have to acknowledge the receipt of your two letters of the 18th & 22d of July and beg leave to state that in my report of the 7th of June when I took charge of this light it was stated there was on hand 65 gallons of Oil and in my report of July 1st 28 gallons by which the consumption would appear to be more than a gallon and a half a day. I suppose my duty was performed when by two reports so near each other the quantity of Oil was made known and the only apology I can plead in the present case is ignoranc which I hope experience will hereafter correct referring again to the first report the Clock of the Light House stated to be in very bad order time which it has repeatedly stopped going entirely and I have had to ______? it turned all night the cogs slip by each other but I have mended it the best way I could and it now goes in a rickety way with constant watching. I have __________? and recovered the chain which was lost. In conclusion I beg leave to state that most everything connected with this Light which is said to be one of most important on our whole coast is in a state of dilapidation both Light house fences, boats and especially the pavements which is in many places undermined and falling away by the blowing away of the sand from underneath every gale of wind blows the sand as it would snow. It is necessary that there should be a perfect protection in this sive ________? boat is wormed for the want of ________? or coppering and I have no cleaning ________ towels soap glass chimney whiting tow

Respectfully
Your obedt servt
Benjamin Smith

A. Ludlow Case, Esqr.
Inspector of Lights
N.Y.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to the Inspector - 1854.

Sept. 22, 1853
Apparatus (new) Fire Island, NY

"Upon motion it was resolved - that a new illuminating apparatus of the best quality (Catoptric) be ordered for the Fire Island Light in consequence of the representations of the L.H. Inspector of the District - the same to be put up with the least possible delay."

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 1, page 269

Fire Island
November 25th 1853

Sir

I spend those few lines to informe (sic) you that the Clock to the Light stoped (sic) before the men got out of site (sic) that came and fixed it and I cannot get it to run as well as it did before and I had to turn it part of the time and part of the time it run would run itself and it sill remains to this morning and you wished me to send word the best way for sending thing heare (?) I cannot tell the best way unless with boats thats bound in this Inlet and I would like to have something to carry coal up in the light house for they sent any thing have for that purpose.

Respectfully yours
Benjamin Smith

Mr. A. Ludlow Case
Inspector of Lights

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to the Inspector - 1854.

Jan. 30, 1854

"From Lieut. A. L. Case - Jany. 12 relative to repairs of clock-work at Fire Island Lt. House and sending plans, proposals etc. for new machinery - Referred to Committee on Engineering.

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 1, page 384

Dec. 5, 1854

"The same committee ask to be discharged from the consideration of the communication from Lt. A. L. Case, Jan. 12, 1854, in relation to plans & proposals for revolving machinery for Lt. Houses, and with reference to clock at Fire Island. The work having been authorized and executed."

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 2, page 52

APPENDIX C.

Historical Documents Relating to the Second Fire Island Lighthouse and Keeper's Dwelling

List of Historical Documents

C1. 1857-1909. Data relating to the Fire Island Lighthouse published in the annual reports of the Light-House Board. 4 pages.

1850's

C2. March 4, 1857. Letter from a Stone Contractor to Engineer. Requesting specifications for stone for building the house. 1 page.

C3. March 24, 1857. Letter from Secretary of the LH Board to Engineer. Appropriation for rebuilding the Fire Island Lighthouse. 1 page.

C4. April 6, 1857. Letter from a Stone Contractor to Engineer. Cost of delivering granite ashlar for lighthouse. 1 page.

C5. April 8, 1857. Letter from Engineer to Secretary of the LH Board. Recommending stone be employed in rebuilding the lighthouse. 1 page.

C6. May 26, 1857. Letter from Engineer to a Brick Manufacturer. Request for proposal to deliver bricks at Fire Island. 1 page.

C7. May 29, 1857. Letter from a Brick Manufacturer to Engineer. Cost of delivering bricks to Fire Island. 1 page.

C8. May 29, 1857. Letter from a Stone Manufacturer to Engineer. Cost of furnishing and delivering granite for foundation of lighthouse. 1 page.

C9. June 1, 1857. Letter from Engineer to a Brick Manufacturer. Requesting proposal for furnishing bricks. 1 page.

C10. June 1, 1857. Prepared by Engineer. Estimate of Cost of Light House at Fire Island. 1 page.

C11. June 3, 1857. Letter from Secretary of LH Board to Engineer. Approval of design and estimate for the rebuilding of the lighthouse, with exception of system of iron ties. 1 page.

C12. June 5, 1857. Letter from a Stone Contractor to Engineer. Proposed cost for delivering stone to Fire Island Lighthouse. 1 page.

C13. June 5, 1857. Letter from a Stone Contractor to Engineer. Cost for furnishing stone. 1 page.

C14. June 16, 1857- Letter from a Brick Manufacturer to Engineer. Cost of furnishing brick. 1 page.

C15. June 17, 1857. Letter from Keeper Fire Island (?) to Engineer. Extending wharf so that materials could be delivered to site more expeditiously. 1 page.

C16. June 21, 1857. Letter from Overseer of Works Great West Bay to Engineer. Driving piles at Fire Island. 1 page.

C17. June 22, 1857. Letter from a Brick Manufacturer to Engineer. Sending regrets, proposal not accepted. 1 page.

C18. June 24, 1857. Letter from Engineer to a Stone Contractor. Acceptance of proposal for supplying stone for lighthouse. 1 page.

C19. June 25, 1857. Letter from Engineer's Asst. to a Brick Manufacturer. Notifying brick contract awarded to another manufacturer. 1 page.

C20. June 25, 1857. Letter from Overseer of Works Great West Bay to Engineer. Cost of taking Pile Driver and Screw to Fire Island. 1 page.

C21. June 29, 1857. Letter from a Stone Contractor to Engineer. Delivery of stone. 1 page.

C22. July 3, 1857. Letter from Engineer to a Stone Contractor. Delivery of stone. I page.

C23. July 9, 1857. Letter from a Stone Contractor. Delivery of stone. 1 page.

C24. July 11, 1857. Letter from Overseer of Works Great West Bay to Engineer. List of additional Tools and Implements to be sent to Fire Island. 1 page.

C25. July 18, 1857. Letter from Overseer of Works Great West Bay to Engineer. List of Tools transferred to Fire Island. 1 page.

C26. July 23, 1857. Letter from Secretary of the LH Board to Engineer. Lantern boxed and ready for transport. 1 page.

C27. July 23, 1857. Letter from a Lumber Manufacturer to Engineer. Notification Timber forwarded. 1 page.

C28. July 28, 1857. Letter from Overseer of Works Fire Island to Engineer. Request for supplies needed at Fire Island. 1 page.

C29. August 15, 1857. Letter from Overseer of Works Fire Island to Engineer. Delivery of stone, bricks, cement and timber. 1 page.

C30. August 28, 1857. Letter from Engineer's Asst. to a Stone Contractor. Additional stone required at Fire Island. 1 page.

C31. August 31, 1857. Letter from Engineer to Secretary of the LH Board. Estimate for rebuilding Fire Island Lighthouse. 1 page.

C32. September 21, 1857. Letter from Engineer to Secretary of the LH Board. Estimate for rebuilding Fire Island Lighthouse. 1 page.

C33. October 21, 1857. Letter from Engineer to Secretary of the LH Board. Estimate for rebuilding Fire Island Lighthouse. 1 page.

C34. January 20, 1858. Letter from Engineer to a Transport Contractor. Transport of machinery and tools to Fire Island Lighthouse. 1 page.

C35. January 21, 1858. Letter from Secretary of the LH Board to Engineer. Comments on First Order illuminating apparatus. 1 page.

C36. March 20, 1858. Letter from Engineer to a Transport Contractor. Transport of machinery and tools to Fire Island Lighthouse. 1 page.

C37. March 20, 1858. Letter from Engineer to Light Keeper at Great West Bay. Delivery to Transport Contractor of equipment for Fire Island Lighthouse. 1 page.

C38. March 20, 1858. Letter from Engineer to Secretary of the LH Board. Storage of the Fire Island illuminating apparatus. 1 page.

C39. April 9, 1858. Letter from Engineer to Secretary of the LH Board. Requesting permission to purchase bricks for facing the Fire Island Lighthouse Tower. 1 page.

C40. April 9, 1858. Letter from Engineer to Secretary of the LH Board. Requesting permission to remove courses of foundation that appear deficient. 2 pages.

C41. April 10, 1858. Letter from Secretary of the LH Board to Engineer. Board does not approve recommendation to take down part of the foundation and approval to purchase additional brick. 1 page.

C42. April 12, 1858. Letter from Engineer to Secretary of the LH Board. Proposal to put a double number of iron bands in the lower ten feet of the tower. 1 page.

C43. April 12, 1858. Letter from Engineer to a Lantern Manufacturer. Request to deliver lantern. 1 page.

C44. April 14, 1858. Letter from Secretary of the LH Board to Engineer. Approval of installing iron bands per letter of April 12, 1858. 1 page.

C45. April 15, 1858. Letter from Secretary of the LH Board to Engineer. Bill for illuminating apparatus. 1 page.

C46. April 19, 1858. Letter from Engineer to Secretary of the LH Board. Notice that the Light apparatus sent to Fire Island and the concrete samples are firmer. 2 pages.

C47. April 20, 1858. Letter from Secretary of the LH Board to Engineer. Drawings of a lantern very nearly like that of Fire Island will be sent when the Engineer requires them. 1 page.

C48. April 23, 1858. Letter from Engineer to Secretary of the LH Board. Request for balance of appropriation. 1 page.

C49. May 1, 1858. Letter from Engineer to Secretary of the LH Board. Balance of appropriation. 1 page.

C50. May 11, 1858. Letter from Engineer to Secretary of the LH Board. Request to obtain clock for Fire Island Lighthouse. 1 page.

C51. May 27, 1858. Letter from Secretary of the LH Board to Engineer. Project nearing completion, request for description of tower and notification that the tower is to be yellow. 1 page.

C52. May 27, 1858. Letter from Engineer to Secretary of the LH Board. Data on tests undertaken on French Moderator Lamps destined for Fire Island. 1 page.

C53. July 3, 1858. Letter from Engineer to Secretary of the LH Board. Enclosing description of the Fire Island Lighthouse per request of LH Board (description not included here). 1 page.

C54. July 3, 1858. Notice to Mariners. Notification that on November 1, 1858, a 1st Order revolving light will be exhibited for the first time at Fire Island. 1 page.

C55. July 12, 1858. Letter from Engineer to Secretary to the LH Board. Two moderator lamps to be transported to Portland and report of inspection of experimental washes on Fire Island Lighthouse. 2 pages.

C56. July 14, 1858. Letter from Secretary of the LH Board to Engineer. Pistons of 1st Order lamp for Fire Island need improvement and the coating for the tower exterior is approved. 1 page.

C57. August 14, 1858. Letter from Engineer to Secretary of the LH Board. Proposal to use the stone in the First Lighthouse Tower and Keeper's Dwelling in the new dwelling. 1 page.

C58. August 16, 1858. Letter from Secretary of the LH Board to Engineer. Order by Board to notify keeper to vacate house when required by Engineer. 1 page.

C59. August 23, 1858. Letter from Secretary of the LH Board to Engineer. Approval for building dwelling at Fire Island. 1 page.

C60. August 27, 1858. Letter from Engineer to Supt. Fire Island. Desire to construct three round windows in tower. 1 page.

C61. September 30, 1858. Letter from Engineer to LH Board. Description of new lighthouse tower and keeper's dwelling at Fire Island. 1 page.

C62. November 4, 1858. Letter from Engineer to Secretary of the LH Board. Report that the Fire Island Light was exhibited on November 1, and burned excellently. 1 page.

C63. December 8, 1858. Letter from Secretary of the LH Board to Engineer. Notice that item for slating at Fire Island is additional. 1 page.

C64. January 1, 1859. Return of tools, machinery and other public property in charge of Engineer. List of items at Fire Island Light House. 2 pages.

C65. April 26, 1859. Estimate for Montauk Pt. Tower. Estimate includes several references to Fire Island Lighthouse. 1 page.

1860’s

C66. 1860’s. Data extracted from unpublished monthly and annual reports of the Inspector and Engineer to the Light-House Board. 1 page.

C67. May 5, 1865. Letter from Acting Engineer to LH Board. Report of conditions at the Fire Island Lighthouse site. 2 pages.

C68. May 13, 1865. Light-House Board Journal. Reported repairs authorized. 1 page.

C69. May 20, 1865. Letter from LH Board to Engineer. Authorization to repair Fire Island Light House per letter of May 5, 1865. 1 page.

C70. March 22, 1866. Letter from LH Board to Engineer. Receipt of letters regarding necessary repairs at Fire Island, work not authorized until appropriations are available. 1 page.

C71. January 23, 1868. Letter from Acting Engineer to LH Board. Notice that enclosed (not included here) is a tracing showing plan of tower and keeper’s dwelling. 1 page.

C72. January 27, 1868. Letter from LH Board to Engineer. Notice that purpose of tracing is for a Coast Survey Chart, and photographs of the Station in Washington, D.C. office are not sufficient. 1 page.

C73. April 7, 1868. Letter from Engineer to LH Board. Tracing of outlines of tower and dwelling enclosed (not included here) and sent to Supt. of Coast Survey. 1 page.

1870’s

74. 1870’s. Data extracted from unpublished monthly and annual reports of the Inspector and Engineer to the Light-House Board. 5 pages.

75. September 21, 1871. Letter from Engineer to Keeper Fire Island Light. Man will be sent to repair tower and dwelling. 1 page.

C76. October 16, 1871. Letter from Engineer to Keeper Great West Bay Light. Request to forward to Fire Island Lighthouse cradle and cement washer tools. 1 page.

C77. 1825-1874. Abstract history of the Fire Island Light Station. 2 pages.

C78. December 31, 1875. Letter from Keeper Fire Island Light to Inspector. Report in relation to new wick in light. 1 page.

C79. January 5, 1876. Letter from Inspector to LH Board. Submitting report (pot included here) regarding English wick. 1 page.

C80. July 17, 1877. Letter from President Western Union to LH Board. Request to install telegraphic apparatus on lighthouse tower. 1 page.

C81. August 27, 1877. Letter from Engineer to LH Board. Report on damage to lens apparatus of light at Fire Island. 1 page.

C82. August 31, 1877. Letter from Engineer to LH Board. Notice of repair to lens of Fire Island light. 1 page.

C83. December 28, 1877. Letter from Keeper Fire Island Light to Inspector. Regarding placement of telegraph wire on tower. 1 page.

C84. January 2, 1878. Letter from Inspector to LH Board. Description of proposed placement of West. Un. Tel. Co. telegraph wire on tower. 1 page.

1880's

C85. 1880's. Data extracted from unpublished monthly and annual reports of the Inspector and Engineer to the Light-House Board. 6 pages.

C86. March 1880. Form No. 36. Description of Light-House Tower, Buildings, and Premises at Fire Island. 16 pages.

C87. December 8, 1883. Letter from Inspector to LH Board. Report on increased consumption of lard oil at Fire Island Light. 2 pages.

C88. July 11, 1884. Letter from Inspector to LH Board. Notice that on July 8, 1884, the mineral oil lamp at Fire Island Lighthouse was put into use. 1 page.

C89. October 31, 1885. Letter from Keeper Fire Island Light to Inspector. Cost of maintaining Fire Island Light Station from November 1, 1884 to October 31, 1885. 1 page.

C90. 1886 and 1887 Field Records. Notice of materials purchased for repairs to dwelling at Fire Island. 1 page.

C91. September 21, 1887. Letter to Engineer from LH Board Secretary. Approval to make repairs requested by Inspector. 1 page.

C92. July 25, 1888. Letter from Engineer to LH Board. Necessity of forming a masons crew that could travel from station to station, including Fire Island. 1 page.

C93. November 7, 1888. Light-House Board Journals. Authority given to build a set of boat-ways, a boat house and a cradle for Fire Island Light Station. 1 page.

1890's

C94. 1890's. Data extracted from unpublished monthly and annual reports of the Inspector and Keeper to the Light-House Board. 6 pages.

C95. August 9, 1890. *Scientific American* article on Fire Island Lighthouse. 1 page.

C96. February 16, 1891. Letter from Engineer to LH Board. Proposal to apply a coat of black asphalt paint to remedy crumbling brick and changing color of lighthouse from yellow to black and white stripes. 1 page.

C97. March 2, 1891. Light-House Board journals. Approval to apply asphalt paint and change color of lighthouse at Fire Island. 1 page.

C98. March 7, 1891. Letter from LH Board to Engineer. Official approval to the Engineer to undertake work specified in February 16, 1891 letter. 1 page.

C99. August 6, 1891. Notice to Mariners. Notice of Change in Color of the Tower at Fire Island Light Station to occur during the month of August. 1 page.

C100. August 29, 1891. Authorization for 300 Galls. Asphaltic Slag paint for painting tower. 1 page.

C101. May 7, 1894. Light-House Board journals. Report on a proposal to install a bivalve lightning light at Fire Island Light Station. 1 page.

C102. May 17, 1894. Letter from LH Board to The Secretary of the Treasury. Recommendation to install an electric light at Fire Island. 2 pages.

C103. May 3, 1897. Light-House Board journals. Seeking appropriate location to place electric light, not to be installed at Fire Island. 1 page.

C104. September 9, 1899. Correspondence of the Light-House Establishment. Notice of cost for material and labor for repairs to dwelling. 1 page.

1900's

C105. 1900's. Data extracted from unpublished monthly and annual reports of the Inspector and Engineer to the Light-House Board. 4 pages.

C106. March 5, 1901. Letter from Engineer to LH Board. Reference to an article in *Engineering Record* for a new coating for the Lighthouse at Grande Pointe au Sable, 9th/District. Engineer requests copy of plans and specifications as Fire Island is plagued with similar problems. 1 page.

C107. March 2, 1901. Copy of the article as noted above which appeared in the *Engineering Record*. 1 page.

C108. December 27, 1901. Letter from Engineer to LH Board. Enclosing Bids for furnishing cast iron railing posts, railing &c. for Fire Island Light Station. 3 pages.

C109. September 1903. Cost of supplies furnished to Engineer. Blacksmith making ironwork for Fire Island Station. 1 page.

C110. April 23, 1906 to August 28, 1906. Miscellaneous correspondence in reference to establishing a wireless telegraph station at Fire Island. 5 pages.

C111. June 1906. Cost of supplies furnished to Engineer - glass and putty for Fire Island Light Station. 1 page.

C112. November 19, 1907. Letter from Asst. Engineer to LH Board. Cost of the installation of a vapor lamp at Fire Island. 2 pages.

C113. February 11, 1908. Letter from Asst. Engineer to LH Board. Candle power of the old and new lights at Fire Island. 1 page.

C114. June 1908. Miscellaneous letters regarding increasing the intensity of Fire Island light. 13 pages.

C115. October 8, 1909. Letter from Captain to Major, 3rd/Dist. Coal shed needs repairs and-kitchen pumps and sinks furnished to assistant keeper's. 1 page.

C116. September 23, 1909. Letter from Inspector to Keeper Fire Island. Annual Property Return Comments. 1 page.

C117. February 15, 1909. Requisition for extra supplies. 1 page.

1910's

C118. January 15, 1910. Requisition for extra supplies. 1 page.

C119. May 8, 1911. Letter from Inspector to Commissioner of Lighthouses. Recommendation of annual allowance for heating the Watch Room at Fire Island Light Station. 1 page.

C120. May 29, 1911. Proposed work and cost estimate for Fire Island Light Station. Repairs to dwelling, including reshingling the roof. 2 pages.

C121. April 9, 1912. Letter from Asst. Superintendent to Inspector. Report on the exterior condition of the Fire Island Lighthouse tower. 1 page.

C122. April 25, 1912, May 8, 1912, and May 29, 1912. Proposed work and cost estimate for Fire Island Light Station. Installation of reinforcing bands and protective coating on tower. 3 pages.

C123. July 12, 1912. Letter from Keeper Fire Island to Inspector. Request for additional mason and two laborers. 1 page.

C124. August 7, 1912. Letter from Inspector to Keeper Fire Island. Necessity of expediting work. 1 page.

C125. September 11, 1912. Progress Report of protective coating work from Keeper Fire Island to Inspector. 2 pages.

C126. September 29, 1912. Progress Report of protective coating work from Keeper Fire Island to Inspector. 1 page.

C127. October 14, 1912. Letter from Inspector to Keeper Fire Island. Related to costs of repair work. 1 page.

C128. October 31, 1912. Letter from Keeper Fire Island to Inspector. Installing bird guard. 1 page.

C129. November 9, 1912. Letter from Keeper Fire Island to Inspector. Removal of staging. 1 page.

C130. November 15, 1912. Letter from Keeper Fire Island to Inspector. Removal of 16 iron stanchions from tower gallery. 1 page.

C131. December 12, 1912. Statement that cost of repairs to Fire Island Light Station exceeded authorized amount due to greater difficulty associated with the protective coating work on the tower. 1 page.

C132. November 29, 1913-to May 11, 1914. Miscellaneous letters relating to the protective coating applied to the lighthouse tower at Fire Island Light Station. 16 pages.

C133. June 12, 1915. Article sent to Mrs. R. J. Tracy of Patchogue from the Light-House Board. Historical summary of the Fire Island Lighthouse. 2 pages.

C134. February 25, 1916. Letter from The Secretary of the Navy to The Secretary of Commerce. Placing underground all overhead wires. 1 page.

C135. August 30, 1918. Letter from Keeper Fire Island to Supt. of Lighthouses. Report of damage and repairs made to tower as a result of lightning striking pinnacle. 1 page.

1920's

C136. August 1927. Newspaper article. "Lighthouse Baby is Born on Beach." 2 pages.

C137. March 23, 1929. Proposed work and cost estimate for Fire Island Light Station. Provide hot water heating systems for quarters of three keepers. Specifications included. 8 pages.

C138. April 30, 1929. Fire at Fire Island State Park. Oil House demolished. 1 page.

C139. June 20, 1929 and July 1, 1929. Miscellaneous correspondence for increased candle power of the Fire Island Lightship and Lighthouse. 3 pages.

C140. November 27, 1929. Letter from The Surgeon General to Commissioner of Lighthouses. Reporting on unsanitary water conditions at Fire Island. 1 page.

C141. December 19, 1929. In-house report on water conditions at Fire Island Light Station. 1 page.

1930's

C142. January 2, 1930. Letter from Commissioner of Lighthouses to The Surgeon General. Advising that the unsanitary water conditions will be corrected. 1 page.

C143. April 3, 1931. Proposed work and cost estimate for Fire Island Light Station. Make alterations to dwelling; install running water supply system; install sanitary sewage disposal system. Specifications included. 11 pages.

C144. July 18, 1932. Letter from Chief Constructing Engineer to Supt. of Light-Houses. Length of flash of the modified Shinnecock lens to be installed at Fire Island. 1 page.

C145. July 22, 1932. Proposed work for Fire Island Light Station. Replace the present lens and apparatus with a more efficient lens. 1 page.

C146. October 27, 1933. Letter from The Franklin Institute, Philadelphia, to the Deputy Commissioner of Lighthouses. Seeking data on the Fire Island Fresnel lens that was transferred to the Institute. 1 page.

C147. May 26, 1937. Letter from The Secretary of The Navy to The Secretary of Commerce. Regarding wireless station. 3 pages.

C148. January 13, 1938. Proposed work and cost estimate for Fire Island Light Station. Renew roof covering and replaster halls and two rooms. Specifications included. 11 pages.

C149. June 7, 1938. Proposed work and cost estimate for Fire Island Light Station. Change light from 10V to electric incandescent. Miscellaneous correspondence related to the change included. 13 pages.

C150. January 18, 1939. Proposed work and cost estimate for Fire Island Light Station. Drive well 200' and install electric pump. Specifications included. 6 pages.

C151. 1939. Historical Summary of Fire Island Lighthouse, which appeared in *Guide to Historically Famous Lighthouses in the United States*, prepared by the U.S. Coast Guard. 1 page.

1940's

No Data

1950's

No Data

1960's

C152. January 1969. Request to modernize equipment, relocate and automate Fire Island Light. 2 pages.

1970's

C153. December 12, 1973. Notice to Mariners that Fire Island Light will be relocated to the water tower at Robert Moses State Park. 1 page.

C154. February 11, 1974. Correspondence relating to relocating the Fire Island Light. 1 page.

C155. August 4, 1975. Survey of the Coast Guard Annex Fire Island Light Station. 7 pages.

C156. October 21, 1975. Report of conditions and corrective actions required at the Fire Island Lighthouse. 2 pages.

C157. October 24, 1975. Operations order for Fire Island Light Station. 2 pages.

C158. News release defining agreement between the U.S. Coast Guard and the National Park Service. 1 page.

1980's

C159. 1981 Transfer of 37.2 acres of land by the General Services Administration to the Department of the Interior. 12 pages.

C160. 1981.National Register of Historic Places Inventory - Nomination Form. 4 pages.

C161. 1981.National Park Service's Classified Structure Field Inventory Report. 2 pages.

C162. 1983.Recommended Treatments, Fire Island Light Station. 9 pages.

APPENDIX C1.

Data relating to the Fire Island Lighthouse
From the annual reports of the Light-House Board, 1857-1909

Note: Each annual report covers the fiscal year July 1 - June 30 for the respective year.

1857 First-class lighthouse at Fire Island. A wharf, store-house, and temporary barracks for the accommodation of the workmen have been constructed, and the greater part of the material required for the construction of the tower has been procured and landed at the site, and it is expected that the tower will be completed and ready for exhibiting the first order lens from it by the middle of the next summer.

Upon completion of the first class tower at Fire Island, now under construction, and which it is expected will be finished early next season, there will be three first class light-houses fitted with first-order lens apparatus, properly distinguished, on the seacoast of Long Island from Montauk Point to the entrance to New York, a distance of about 120 miles, which will render the navigation along that coast, with ordinary care and precaution, entirely "easy and safe".

1858 Fire Island light-house, the rebuilding of which was commenced in the summer of 1857, is nearly completed, and the new light will be shown for the first time on the 1st of November next.

1866 During the season now closing, repairs, more or less extensive, have been completed on eighteen stations. (Fire Island was included in the list.)

1867 Fire Island, Long Island Sound. - The roof of keeper's dwelling has been repaired, and new doors and steps made for the cellar.

1868 145. Fire Island. - Nothing required except some small articles of supply, which will be furnished.

1869 144. Fire Island, sea-coast of Long Island. - The tower at this station is in good condition. The keeper's dwelling and fences need some small repairs. The illuminating apparatus has been overhauled and adjusted. A Funck lamp has been fitted in place of the mechanical lamp hitherto in use. Boat has been newly rigged and mooring supplied. Lanterns, curtains and fixtures, new pump, tool-chest and necessary tools, have been furnished.

1871 170. Fire Island, Long Island. - The outside painting on the tower is very defective, and does not appear in the color represented in the Light-house list. Many bricks are crumbled, and require to be replaced by sound ones, and the tower covered with Portland cement-wash. Speaking-tubes and an alarm-bell are also needed to communicate from the watch-room with the keeper's dwelling. An estimate of $500 is submitted herewith.

1872 169. Sand's Point, Long Island, New York.
173. Great West Bay, Long Island, New York.
174. Fire Island, Long Island. New York. A special appropriation having been made for the repair of these stations measures will be speedily taken to place them in a good condition, and to repair the enclosures before the winter sets in.

1873 Repairs to Fire Island.

1874 183. Fire Island, New York. - The repairs at this station authorized under the act of June 10, 1872, have been completed and the station placed in good condition.

1875 Repairs to Fire Island.

1876 190. Fire Island, south side of Long Island, New York. – Repairs have been made to the illuminating apparatus at this Station. The lantern has been sheathed anew and the tower cement-washed and recolored.

1878 Repairs to Fire Island.

1879 Repairs to Fire Island.

1885 196. Fire Island, Fire Island Inlet, south side of Long Island, New York. Mineral-oil lamps were set up during the year, and certain minor repairs were made.

1886 At the following-named stations, repairs more or less extensive were made during the year:
197. Fire Island, N.Y. (included).

1887 At the following-named stations, repairs more or less extensive were made during the year:
203. Fire Island, N.Y. (included).

1889 214. Fire Island, south side of Long Island, New York. - Repairs were made to the keeper's dwelling and tower, a boatway 120 feet long was built, the boat-house was fitted with winch, and a coal bin was built.

1890 239. Fire Island, south side of Long Island. New York. - An oil-house was built and the boat-ways were length

1891 243. Fire Island, south side of Long Island. New York. - The oil-house was completed, and various repairs were made.

1894 276. Fire Island, New York. - This is the most important light for transatlantic steamers bound for New York. It is generally the first one they make and from which they lay their course. It is a first-order light, flashing white at intervals of one minute. The illuminant is an oil lamp of 500-candlepower, and the intensity of the flash equals 63,830 candles. Mr. Henry Lepaute, of Paris, France, a manufacturer of lens apparatus for light-houses, exhibited at the World's Columbian Exhibition, held in Chicago in 1893, what is known as a bivalve lightning light, with electricity as an illuminant. It is called bivalve because it consists of two powerful range lenses, 9 feet in diameter, back to back, and is named a lightning light on account of the brilliancy and short duration of the flash. The arc light used is of very high candle power, and the makers claim that the intensity of the flash will be proportionately greater. The apparatus is so arranged as to give a flash every five seconds. The duration of the flash is about one-tenth of a second. The Light-House Board concluded to purchase this apparatus and install it in Fire Island light tower in place of the present lens. This necessitated in addition a steam and electric-light plant and a boiler and engine house to contain them. The steam and electric-light plant has been delivered by the makers at the Staten Island general depot. The boiler and engine house is now being built. During the change the light will be shown temporarily from a fourth-order lens.

1895 284. Fire Island, seacoast of New York. - The ceiling and walls of the dwelling were repaired and patched. The watch-room deck was pointed and grouted. The following named work, preparatory to establishing the new electric light, was completed: A power house and coal shed were built. Two boilers, one engine, one dynamo, and one exciter were put in place. A narrow-gauge railroad was built from the beach to the coal shed. All the ironwork necessary to adapt the lantern to the new apparatus was fitted, and is now stored at the general light-house depot ready for shipment. A fourth-order lantern was placed temporarily on a bracket on the south side of the tower to be used while the new light is being installed.

1897 317. Fire Island, New York. - The steam and electric plant established at this station was returned to the General Light-House Depot on December 21, 1896.

1898 325. Fire Island, New York. - Telephone connection with the light-house engineer's office was established on May 5, 1898, under the appropriation for national defense. On May 18 the station was furnished with a signaling out fit [*sic*]. The station was connected by telephone with the Life-Saving Service line, so that messages can be sent to Quoque Life-Saving station and connection made there with the central station at Quogue, so that messages can be repeated at the Life-Saving station direct with the general light-house depot.

1900 348. Fire Island, New York. - A series of experiments in wireless telegraphy were made at this station by signal officers of the War Department, the use of the building and grounds being granted by the Light-House Board for the purpose. Various repairs were made.

1901 358. Fire Island, New York. - Fifty-four running feet of damaged foundation wall, on south side, was replaced, the east wall was repaired and partly replaced, the flagging of the pier was relaid, the pier fence was repaired and portions were rebuilt. Minor repairs were made.

1905 372. Fire Island, New York. - The survey of the light-house reservation was extended and completed. Various repairs were made.

1908 Fire Island, New York. - Fire Island light is the objective point of all vessels approaching New York Harbor from the eastward after making Nantucket Shoals light-vessel, and it is of the greatest importance to navigation that this light should be of a character equal to that of the best lights in existence elsewhere. It is estimated that this station can be equipped with modern high power illuminating apparatus at a cost of $30,000, and the Board recommends that an appropriation of that amount be made therefor.

1909 Fire Island light is the objective point of all vessels approaching New York Harbor from the eastward after making Nantucket Shoals light-vessel, and it is of the greatest importance to navigation that this light should be of a character equal to that of the best lights in existence elsewhere. It is estimated that this station can be equipped with modern high power illuminating apparatus at a cost of $30,000 and the Board recommends that an appropriation of that amount be made therefor.

Bluehill March 4 1857

J. C. Duane

Dear Sir we suppose that before this time you know about the appropriation for the Light House at Fire-Island, if so & your going to build, we would like to have you send specifications of the stone that you will want in building the house.

Yours respectfully

J. Nescott & Co. (?)

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

Treasury Department
Office L.H. Board
March. 24. 1857

Sir:

Congress at its late session made an appropriation of $40,000. for rebuilding the Lt House at Fire Island.

This 1st/ order revolving apparatus for the proposed tower may be set down in round figures at $10,000.-, leaving $30,000. - for the tower which should not be less than 150 feet -- focal plane, above mean low water.

I have to request your early attention to this subject in consideration of the importance of a 1st/ order light at that point.

Very respectfully

Comdr T. N. Jenkins
Secretary

Lieut. J. C. Duane
Corps of Engineers
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

New York April 6. 1857.

To. Lieut. Duane

Sir,

I hereby agree to furnish and to deliver at a wharf in Fire Island Inlet, say 50,000. cubic feet -- more or less, of granite Ashlar for Light-House with bids and builds roughly duped, but well formed, at the rate of sixty five cents per cubic foot, or. I will deliver the same on a wharf in New London, Conn. for fifty three cents per cubic foot.

I will furnish and deliver in Newark Bay. N.J. granite as above specified at the rate of sixty one cents per cubic foot.

Very Respectfully Yours,

S. B. Peet (?)

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

New York April 8th 1857

Lieut H. B. Franklin
Sec't of L. H. Board

Sir

The appropriation for rebuilding the Light House at Fire Island will be reduced by the purchase of a Lantern and illuminating apparatus to about $25,000. This sum will not probably be sufficient to erect a Tower of the required size - even if brick were employed. This material does not appear to me to be any means adapted to a work of such importance and in such an exposed situation. I would therefore recommend stone to be used in this case. The present appropriation would be sufficient to build the Tower and probably the Lantern, leaving the apparatus to be purchased from a new appropriation or some other source.

The Tower at Montauk is badly cracked and will require rebuilding before many years. In placing the new Lantern and Lens upon it, it will be advisable to use as far as possible such material only, as can be transferred easily to another Tower. The expense of refitting this tower will be about $2,000, this does not include the Lantern.

Very respectfully,

J. C. Duane
Lieut. of Engrs.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 51, page 54

New York May 26 1857

Chas Page Esq.
Danvers Mass

Sir

I enclose herewith my check for $637 00/100 on Apr Treas N.Y. to your order in payment for 63.750 Bricks are per vouchers rec'd with yours of 25.

I wrote some ten days since requesting you to make proposals for delivering 800 tons Bricks at Fire Island, the first lot to be delivered about the middle of July.

The L.H. Keeper states that there is twelve feet of water on the bar at low water at that place -

Respy your obt sert

J. C. Duane
Lieut of Engr.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letter from Engineer to Light-House, p. 57

Danvers, May 29th/ 1857

Lieut. J. C. Duane -

Sir, yours of the 26th/ is received enclosing the draft for $637.50.

I send you enclosed the bill of __?__ for sixty ton __?__ common bricks which with the previous freight will make seventy-eight-ton, please send me vouchers for $585.00 - .

I regret that I did not receive your letter which was written previous to this, requesting me to give you my proposal for supplying you with the __?__ __?__ bricks at Fire Island on account of making arrangements for burning my first kilns - I think however I can furnish you the bricks as fast as you will want them at the same price that I furnish this lot, notwithstanding bricks are higher at present than they were in the Spring. That is $10.00 per ton on board the vessel. I have not been able to ascertain what would be the probable cost of transportation at the place you name, but will do so if you wish me as soon as I can satisfy myself of the prospect of obtaining vessels to take them so that theremay be no delay; but if I cannot land them immediately on the spot I think some one nearer could do it better and cheaper than myself. I am willing to do all I can to obtain the vessels here as I have done so far for Mr. Kimball, and would like to have you answer this as soon as you can with convenience to your self, as I shall not dispose of any bricks until I hear from you. I shall send you another freight of about 40 ton in about ten days if you should not inform me that they will be wanted before.

Yours truly

Charles Page

P.S. If you except (sic) my proposal please inform me of number of bricks you will want in July.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

New York May 29. 1857

Lt. Duane Corps of Engineers

__?__ We propose to furnish the Granite for Foundation of Fire Island Light House as per Plans and deliver the same at Fire Island for the sum of eighty cents (.80) per cubic foot.

Respectfully your obt svt.

Beals & Janes
per Noble

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

New York June 1 1857

Charles Page Esq.
Danvers Mass.

Sir

I enclose herewith vouchers in tripl- for 58.500 Bricks amtg to $585- which please sign & return to me.

Before I make any decision concerning the Bricks for Fire Island I wish to have a proposal from you for them delivered at that place- As I have several other proposals and shall shortly decide upon them, it would be well to forward yours with as little delay as possible.

Respy your obt svt

J. C. Duane
Lieut of Engr.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 59

APPENDIX C10.

New York June 1 1857

Estimate of Cost of Light House at Fire Island

800 ____ Brick	$8000
1200 lbs. cement	1500
Stone for foundation 4700 ft.	2820
Concrete for foundation 650 yds.	3250
Stone steps 160	1600
Stone for Cornice 500 ft.	500
Cast Iron 2500 ____	1000
Stone Floors 300 ____ ft.	300
Wrought Iron ladders, railings, &c. 8000 ____	200
Work Masons 1610 days	4000
" Carpenters 250 days	500
" Stone Cutters 150	375
" Blacksmith 150	300
" Laborers 2000	2500
Freight	4000
Machinery Tools, etc.	1500
Total	$32,345

J. C. Duane
Lieut. of Engrs.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 51, page 64

Treasury Department
Office L.H. Board
June 3. 1857

Sir

Your design and estimate for the rebuilding of the Fire Island Inlet Light House have been received and referred to the Board.

I have been directed to inform you that they are approved, with one exception, and that you are authorized to proceed with the construction as soon as the money is available, which will be on July 1, 1857.

The exception referred to is the system of iron ties introduced by you. The Committee of Engineering is of the opinion that the walls joining the inner cylinder to the outer walls might be materially strengthened by the introduction of __?__ or sheet iron ties running from the cylinder to the outer walls, and having their ends turned up, but does not approve of the horizontal rings.

I shall be in New York on Friday.

Very Respectfully

W. B. Franklin
Secretary

Lieut. J. C. Duane
Corps Engr.
New York, N.Y.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

Brooklyn June 5th/ 1857

I offer to furnish the stone as required by sheet of specifications for Light House on Fire Island for the sum of Three Thousand Nine Hundred & Seventy five Dollars. The privilege being accorded to me of making one __?__ 1 in less than 2 ft. & one __?__ 1 in more than 2 ft. in viso (?).

$3,975 signed __?__ __?__

One fourth delivered in a month and one additional quarter every ensuing 15 days.

signed __?__ __?__

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

New York June 5th/ 1857

Lieut. J. C. Duane

Sir

I hereby propose to furnish stone as per plans and specifications for Fire Island Light House, delivered at the Wharf on the Island for Fifty cents per cubic foot (stone to be in the rough).

John ___?___
Greenwich, Conn.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

Coxsackie June 16th/ 1857

Lieut. J. C. Duane

Dr Sir

I hereby offer to deliver at Fire-Island as many good hard burned brick selected as you may require to build the Light House at that place for Eight ($8) Dollars per ton if burned in the ordinary way, but if burned without the use of coal Eight Dollars & Fifty Cts per ton.

Please advise me of the time you propose commencing the delivery of Brick - I have forgotten the time as stated by Mr. Dominick when here.

Respectfully yours

E. N. Hubbell

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

APPENDIX C15.

Fire Island Light House
June 17th/ 1857

To

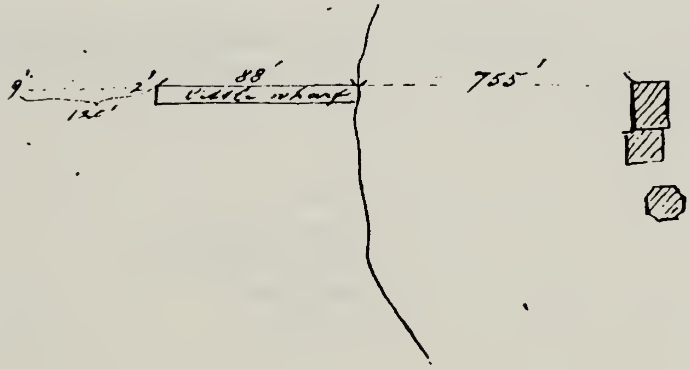
Lieut. J. C. Duane
Corps of Engr's

Sir

The distance from the northeast corner of Keepers house to little wharf in a straight line is 755 feet, the little wharf has a length of 88 feet and it would require a prolongation of it of 120 feet to make the wharf near a depth of 9 feet at low water.

Very respectfully
your obt servt.

?



Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

Light House Great West Bay
June 21st. 1857.

Sir,

I have progressed so far with this work as to finish setting the 5th course of Granite Stone and correcting it level, and shall commence putting in the Plinth in top course tomorrow morning.

It is my intention to commence the Brick Work on Monday next. (29th) if we have fair working weather. I have heard this morning that the Capt. of the ________? that is to freight up the Iron work does not intend to leave New York till after the 4th of July , if that is the case, it will put us back with the Masonry, as some of the Iron work will be required soon after the commencement of the Brick.

Yesterday I was at Hortons Point, the stormy weather of late has put us back some with the work, but I have now five stone masons at work and am in hopes to progress with that work more rapidly.

I leave here this afternoon for River Head, to take the Train tomorrow morning for Islip to see about the driving of the Piles required for Fire Island agreeably to your instructions.

I am
With Respect
Your Obedt Sert.
Wm. Lane
Overseer

Lieut. J. C Duane
Corps U.S. Engineers
New York

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1854) Vol. 12

Danvers, June 22d 1857

Dear Sir,

Your letter of the 15 inst. is received, and I regret that you cannot use my bricks at Fire Island.

I write to ask you, (if you have not already contracted for the bricks for that place) if you will please inform me what would be the most you could afford to pay per ton for bricks delivered there and if there will be a wharf &c -- as I have a good lot of bricks I could send you and would be glad to do so even at a small proffit (sic).

Please write me if you will be in want of more bricks at Great West Bay before the 10th of July -

Yours truly

Charles Page

Lieut J. C. Duane
Corps of Engineers

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

New York June 24, 1857

Messrs Bodwell & Webster
Vinalhaven, Me.

Gentln

I have decided to accept your proposal as made to Mr. Kimball for the delivery of the rough stone at Fire Island viz Forty cents (40¢) per cubic foot. I shall have them cut myself at Fire Island -

I shall require the stone for the first course by the 15th of July and the remainder as soon thereafter as may be possible - You will please advise me what will be the longest time required by you to deliver the whole.

The stones are to be quarried of the proper sizes to cut as per enclosed drawing -

Please advise me of the receipt of this letter as soon as received.

Yours respectfully

J. C. Duane
Lieut of Engrs.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 65

New York June 25, 1857

Chas Page. Esq.
Danvers Mass.

Sir

Your letter of the 22d inst is to hand. Lieut J Duane is absent from the City but I can inform you that he has made a contract with E. N. Hubbell Esq of Coxsackie N.Y. for the Bricks for Fire Island Light House.

The supply of Bricks at Great West Bay is sufficient to last till the 10th/ July, but if you have opportunity they will receive all you send, and it is better to have a number there than to run the risk of falling short.

Yours respectfully

F. J. Dominick

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 67

Light House. Great West Bay
June 25th/ 1857.

Sir,

I have returned from Islip and can get a Pile Driver and Screw there for $2. per day. It will cost $4 to take it to Fire Island, and the same to return it, I conversed with a person there who had driven a few piles in that locality, and he says they can be driven without any difficulty.

All the large stone for the Top & Plinth course are now set, and I shall commence with the smaller ones this afternoon, and shall have everything ready for the Brick work the 1st/ of the coming week.

I am with Respect,
Your obedt. servt.

Wm Lane
Overseer

Lieut. J. C. Duane
Corps U.S. Engineers
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

APPENDIX C21.

Vinalhaven June 29th/ 1857

Lieut Duane

Yours of the LHB came to hand yesterday with the Drawings for Fire Island Light. You required the first delivery by the 15 of July which is rather sooner than I was expecting them required. If we can get a vessell (sic) to take them we will ship our cargo next week and it will depend uppon (sic) the wind and weather abut (sic) getting there the 15th/ and the remainder will be forwarded as soon as possible ___?___ during August (?) Please inform, us by return of mail how much water there is at the wharf where where (sic) we discharge the stow and ___?___ ___?___ was from Mr. Kimball. Information that the facilities and the chance for discharging was good if that is not the case ___?___ are labouring (?) under a mistake & I have been told that there was not but 8 feet of water if so it is misfortunate for us to know it as more of our vessels draw aft 10 feet if is the case you will find ___?___ to take a part of the cargo out before going to the wharf.

Yours very respectfully

Bodwell & Webster

Please direct your letters if written this week to Methuen, Mass. as one of us will be there from the 4th to 7 of July.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

New York July 3, 1857

Bodwell & Webster
Vinalhaven, Me.

Gentln

Your letter of 29 ult. has been received -

If the first cargo of stone arrives at Fire Island by the 25th of July, it will be soon enough to answer my purpose.

I am informed by persons living at Fire Island, that there is 12 feet water on the bar, at that place at low water, and although you should select vessels drawing as little water as possible, I presume you will find no difficulty.

Respectfully your obt. svt

J. C. Duane
Lieut. of Engrs.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 73

Vinalhaven July 9th/ 1857

Mr. Duane

On arriving at this place we found a vessel here which we chartered to load for Fire Island the ___?___ will be there in all probability as soon as the 20th of July.

Yours very resp.

Bodwell & Webster

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

APPENDIX C24.

Light House Great West Bay
July 11th/ 1857.

Sir,

There will be required for Tools & Implements for the Construction of the Light House at Fire Island, in addition to those to be sent from this work.

1 Grind stone about 225 lb.
1 Set hangings for ___?___
1 Sand screw
1 Solid Box Vice
1 Anvil
1 ___?___ 32 in bellows
2 Smiths sledges the usual weight
1 Smiths hammer
2 Chaldron Smiths Coal (cumberland)
4-1 ft. crowbars
3 ___?___ Levels 2'6" long
3 Collins Axes
1 Hand Axe for carpenters use

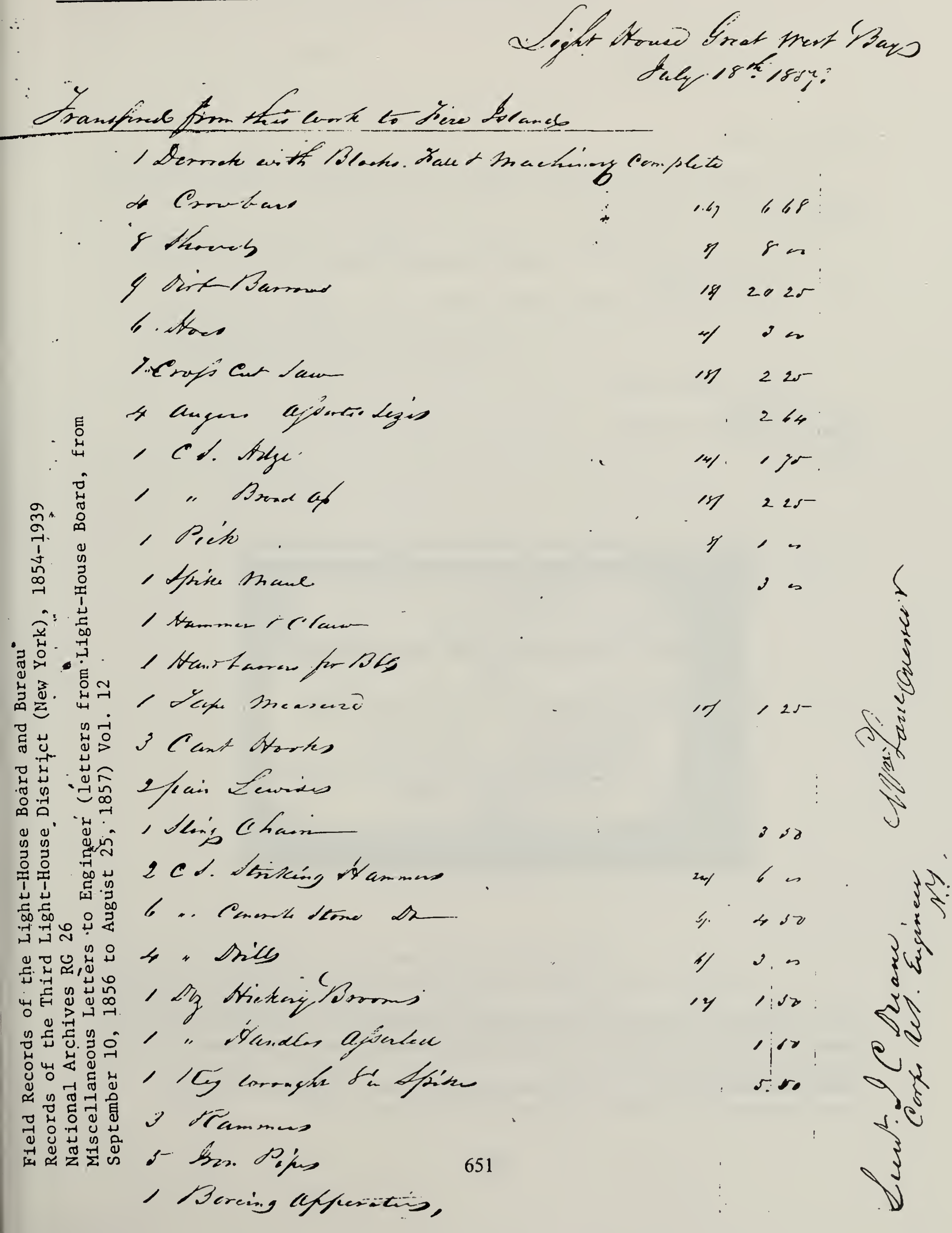
6 (?) kegs cut nails 8 10 12 20
25 lb wrought nails 8"
2 Doz cotten chalk lines medium size
10 lb white chalk
1 lb red chalk
1/2 Doz ___?___ Dippers
1 Doz Oak Buckets, Iron handles
Files 1/2 Dz - 7" 2 Dz 4"
3 sq. handsaw files

Very respectfully
Your obt. servt.

Wm Lane

Lieut J.C. Duane
Corps U.S. Engineers
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12



Light House Great West Bay
July 18th 1857.

Transferred from this work to Fire Island

1 Derrick with Blocks. Fall & Machinery Complete		
4 Crowbars	1.67	6 68
8 Shovels	8/	8 00
9 Dirt Barrows	18/	20 25
6 Hoes	4/	3 00
1 Cross Cut Saw	18/	2 25
4 Augers Assorted Sizes		2 64
1 C.S. Adze	14/	1 75
1 " Broad Ax	18/	2 25
1 Pick	8/	1 00
1 Spike Maul		3 00
1 Hammer & Claw		
1 Handbarrow for Blks		
1 Tape Measure	10/	1 25
3 Cant Hooks		
2 pair Lewises		
1 Sling Chain		3 50
2 C.S. Striking Hammers	24/	6 00
6 " Concrete Stone Do	6/	4 50
4 " Drills	6/	3 00
1 Dz Hickory Brooms	12/	1 50
1 " Handles Assorted		1 50
1 Keg wrought 8 in Spikes		5 50
3 Hammers		
5 Iron Pipes		
1 Boring Apparatus,		

Appd: Lane Overseer

Lieut. J. C. Duane
Corps Art. Engineer
N.Y.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (letters from Light-House Board, from
September 10, 1856 to August 25, 1857) Vol. 12

Portland, Me July 23. 1857

My dear Duane

The lantern for Fire Island (Ames) is at Chicopee, boxed & ready for transportation. Can you take it & have it stored either in New York or at Fire Id?

If you can, send to J.L. Ames Chicopee Chafs ___?___ and he will send it as you direct.

Very truly yours

W. B. Franklin

Lt. J.C. Duane
Corps of Engn'r
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

APPENDIX C27.

Deep River
July 23rd/ 1857

Lieut J.C. Duane

Dear Sir

Enclosed please find Bills of ___?____. Timber &c forwarded to Fire Island by Sloop Star.

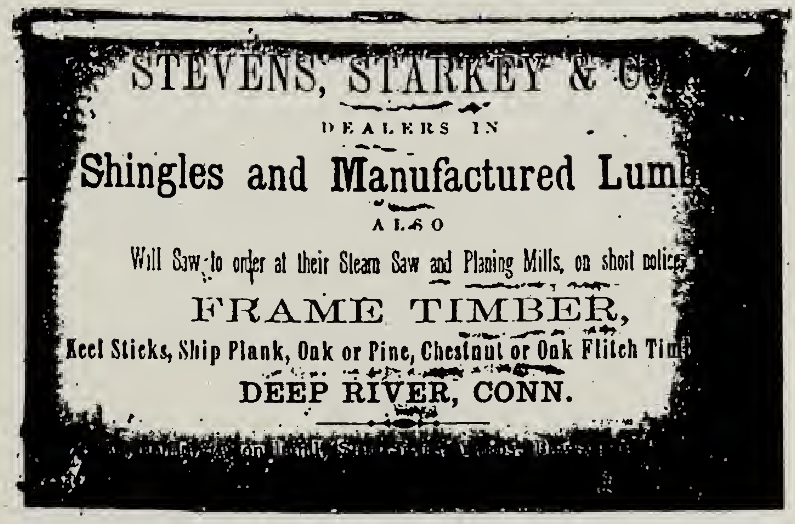
For some if correct viz. -- $800.33/100 Dollars please remit.

Awaiting further orders we remain.

Your Obdt. Servts.

Stevens, Starkey & Co.

P.S. not transcribed



STEVENS, STARKEY & CO

DEALERS IN

Shingles and Manufactured Lum

ALSO

Will Saw to order at their Steam Saw and Planing Mills, on short notic

FRAME TIMBER,

Keel Sticks, Ship Plank, Oak or Pine, Chestnut or Oak Flitch Tim

DEEP RIVER, CONN.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

July 28th/ 1857

Required at Fire Island

4 Kegs 6 inch Cut Spikes
15 Bars 5/8" Round Iron

Pleas (sic) send them as soon as possible

The Sloop Star is here with another cargo of Lumber and will finish dischargeing (sic) this afternoon the wharf will be ready -- for vessels to discharge cargoes on by Friday and Saturday next.

The articls (sic) sent by the Steamer Scremer has been received in good order.

Very Respectfully

Wm Lane
Overseer

To Lieut J.C. Duane
U.S. Engineer

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

August 15th/ 1857

Fire Island

Lieut J.C. Duane

Dear Sir there has been received at this work two cargoes of Rough Stone for concrete one of 55 tons and one of 25 tones (sic) both of the Captains say they cannot bring any more at the same rate but as they will both have to call at your office for they say you will have an opportunity of making a bargain with them yourselfe (sic) if you wish them to go for more

The two cargoes of brick have been landed.

There will be required as soon as you can make it convenient 400 barrels cement

Also 1450 running feet of 4" x 4" Maple (?) Joice (?) for one track commencing at the dock and running as far on shore as to the center of the Light House

Also 180 tyes (sic) about 7 feet each - 4 feet apart.

Very Respectfully
Your obe. servnt.

Wm. Lane
Overseer

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters to Engineer (Letters from Light-House Board, from September 10, 1856 to August 25, 1857) Vol. 12

APPENDIX C30.

New York Aug. 28 1857

Messrs Bodwell & Webster
Vinalhaven, Me.

Gentln

I am directed by Lieut Duane to inform you in reply to yours of the 21st/ inst that there will be required at Fire Island thirty two pieces of granite as follows

16 pieces - 5 feet 6 inches long
1 foot 8 " thick
2 feet - wide

and 16 pieces - 6 feet 4 inches long
4 " 2 " wide
9 inches thick

These you may send with the remainder of your contract should you see fit to furnish them at the same rate (40¢ per foot) -

As soon as the cargo of the "Judge Taney" arrives vouchers for 75% of the amt due will be sent you.

Respy your obt svt

F. J. Dominick

add rep
Lieut J. C. Duane New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 102

New York August 31, 1857

Comdr T. N. Jenkins
Secretary L.H. Board
Washington, D.C.

Sir

I enclose herewith estimates for Rebuilding &c. Fire Island L.H. - $10,000 - and for Rebuilding Papaic L.H. - $4,629.43.

The amount for Fire Island L.H. is required to pay for materials & labor, whilst that for Papaic L.H. is to cover the amount paid for stone for foundation for that L.H.

Respy. your obt svt.

J. C. Duane
Lieut. of Engrs.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 487

APPENDIX C32.

New York Sept. 21st, 1857

Comdr. T. N. Jenkins
Secretary of the L.H. Board
Washington, D.C.

Sir

I forward herewith Estimates in dupl. as follows for

Rebuilding &c. Fire Is. L. House	$5000-
Completing Great West Bay L. House	
Repairs Ec. of L. Houses	3000-
Supplies for L. Houses	4000-

The amount of the estimate for Great West Bay L.H. is left blank - I have to request that you will cause it to be filled with the amount now available in the Treasury. This should be about $9000-

The amount required for Repairs &c. includes the amount needed to complete __________ Point L. House as well as that for some necessary repairs at other places - The amount $4000 from Supplies &c. is to cover the expense of purchasing and erecting lanterns at several light houses -

Respectfully your obt. svt.

J. C. Duane
Lieut. of Engrs.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 488

New York Oct. 21 1857

Com. T. N. Jenkins
Secy L.H. Board
Washington, D.C.

Sir

I forward herewith Estimates for Special ____ for $5000 for Rebuilding Fire Is. L. House, and $5000 Rebuilding Bergen Point L. House - Also for $1000 for Supplies for salaries &c. of workmen employed in workshop -; and $9800 for Repairs &c. of L. Houses.

Of this last amt. $5000 is required to complete Great West Bay L. House, $800- to complete Bu light at Lloyds Harbor; and $4000 for certain general repairs in the district, including Light Houses, at Coxsackie, Saugerties, Gull Is., Faulkners Is., Great Captains Island &c -

Very respectfully,

your obt. svt.

J. C. Duane
Lieut. of Engrs.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 494

New York January 20 1858

Martin V.B. Squire Esq.
Goodground. N.Y.

Sir

I have to inform you that I have decided to accept your proposal of Dec. 30th/ 1857 for the transportation from Ponquog Point to Fire Island of the following articles, for the sum of Forty dollars ($40-) - viz

1 House power machine complete
All the rigging, blocks &c at Great W. Bay Light House
3 masts. __?__ Trees, Boom &c
3 wooden and 1 Iron Hoist Buckets.

You will be required to keep all the foregoing articles under cover and not exposed to the action of the weather.

The Light House Keeper has been directed to deliver the above to you whenever you desire it -

Very Respectfully &c

J C Duane
Lieut of Engr.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 156

Washington D.C.
Jan. 21, 1858

My dear Duane

Your letter of the 8 inst. has been on my table since it was received, but I have not had time to attend to it. I am afraid we will have to pay for the lens for Fire Id whenever it arrives. For the payment for it must come out of the appr. The only way to do will be to keep on as long as you can, & then stop. We will give you means to finish if possible, that is all we can promise. I hope your new lamps will work well. I think they will do well for the three first orders, except I do not like the idea of carrying oil to the top of the lens. I think it would be better to pump it from the lens platform, & have a tell tale to show when it is full - No funds have yet come from the Treasury, but they are signing Treasury notes as fast as they can. I hope our time will come soon.

I will look for the Watch Hill sea wall plan, but it is my impression that none has ever been made -

Very truly yours
W. B. Franklin

Lt JC. Duane
Corps of Engr
New York -

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to Engineer, 1858.

Engineer Office 3 LH Dist.
New York March 20 1858

Mr. M.V. B Squires
Goodground N.Y.

Sir

Mr Conly Lt. Keeper has been directed to deliver to you 3 Hoist Buckets and one set of iron platform and supports, which I have to request you will transport to Fire Id with the other materials now in your possession -

These articles may be delivered at Fire Id as soon after the first of April next as possible -

You will be paid something extra for the above in addition to the amount agreed upon with Lieut Duane.

Respectfully your obt servt

Jas St C Morton
LH Engr.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 184

Engineer Office 3d Dist.
New York March 20, 1858

Mr. C.H. Conly
Light Keeper GW Bay

Sir

I have to request that you will deliver to Mr. Squires for transportation to Fire Island. Three wooden Hoist Buckets and one set of iron platform and supports, the same as thoseused in the tower at G.W. Bay. These you will find in the Blacksmith shop - They consist of 5 wrought iron supports and two cast iron platforms -

Please take this receipt for the dam and send it to me at this office -

Very Respectfully

Jas St C Morton
LH Engr.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 185

Engineer Office 3rd Lt. House Dist.
New York March 20th/58

Capt. Wm B Franklin
Sec'y Lt House Board
Washington D.C.

Sir

I have to acknowledge the receipt of your letter of the 17th/ & 18th/ inst and of the inventory of the contents of the 35 boxes containing the Fire Island illuminating apparatus -

I have receipted for the boxes to Capt. McKinstry: they have been since the 27th/ ult. in the bonded warehouse No. 371 Washington St. I will send them before the 27th/ inst to Fire Island, retaining for experiment the boxes you designate -

(Remainder of letter does not refer to Fire Island)

Yours Respectfully

your obed. servt.
Jas St C Morton

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 183

Engr Office 3rd Lt H Dist
Apr. 9th/ 58

Capt. Wm. B Franklin
Sec'y Lt. House Board
Washington D.C.

Sir

In case that you see fit to have the tower at Fire Island proceeded with, without carrying out my recommendation in my other letter of today (of removing a certain number of the existing courses of its foundation) I would request permission to purchase a hundred thousand hard brick for facing the tower.

Lieut. Duane had intended to buy these brick if he could at this time anticipate getting enough money to do so, and still finish the tower: about $1,200.- to $1,500.- will be all the expense.

I would not ordinarily write on such subjects, but in this case I knew it was your impression that no more brick were to be bought -

I am going on briskly with the work at Passaic Lt House and will commence the first of next week at Great-west Bay: it has been yet almost too frosty to begin laying masonry on the sea shore - I will be able to send my masons from Fire Island to Great West Bay while the courses of the foundation are being removed at the former place, should you approve my recommendation -

I remain-your obed servt-
J St C Morton
L H Engr.

P.S. In looking over the 1st paragraph of this letter, I wish to amend it by saying that in case no change is made in the foundation, I ought to have permission immediately to buy the bricks: while if you sanction the taking down of two or three courses, no hurry is requisite.

J St C Morton

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, P. 204

Engr. Office 3rd/Lt. H. Dist.
April 9th/58

Capt. Wm. B. Franklin
Sec'y. Lt. H. Board
Washington, D.C.

Sir

I was on the 7th and 8th inst. at Fire Island, when it occurred to me to try, with a pick, the concrete filling of the foundation, which had a bad appearance.

The work had been left off last December, when the next to the last course of facing stone, and its filling of concrete, had been laid: the concrete was therefore the layer which is 2 feet thick and which is from 2 to 4 feet below the level at which the brick tower rises.

I found the concrete bad, and had a hole dug as large as a barrel, which went through this layer of concrete, and 6 inches into the under __________: specimens of each layer were removed by me for future reference.

I regret exceedingly to have anything to complain of with respect to this concrete - I feel that it is a delicate business, but it would be assuming a great risk to my reputation to build on a foundation that might prove unreliable, and in a way that could not admit of any concealment.

I found the concrete as far down as I got, (2'6") quite friable and porous: the mortar could be reduced into a powder between the fingers, easily; it was in fact no stronger than hand made.

It had every appearance of a surplus of sand, too much water in the mixing, and not enough __________.

At the same time it is possible that this upper layer, and the next, had been injured by the frost - this would account equally well for the appearance of the concrete, and would explain its dampness, which I cannot well explain otherwise.

Now it is not very probable that any great damage will immediately result from building on this foundation, provided the two courses of concrete alone are inferior: the tower will press equally on all parts, and the facing of granite will exclude frost. At the same time, the weight of the tower would in the course of _______ occasion some settling in the mass which would crack and disfigure the tower, and there is a certain possibility that the tower might soon be ruined by some granite giving way of its bed.

After a long deliberation I respectfully recommend that I may be allowed to remove as many courses of this present foundation as are bad masonry; it will not cost much: the concrete can be sifted, and the broken stone used again.

The loss of time can be made up by allowing me to go to work with a force calculated on the supposition that you will find the funds out of some other appropriation: I will engage to complete the work this season in that case.

I have at present about half a dozen masons at work, cutting brick and laying the last course of the foundation, which ought to be done today: I would not alter any of the existing dispositions before obtaining your authority.

With regard to concrete it is proper I should mention that I have had every opportunity to become a good judge of it, and of cement.

I am, very respectfully

your obed servt.

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 548

Treasury Department
Office L H Board
April 10 1858

Sir.

Your letters of the 9th/ inst relative to Fire Isl L H foundation, & bricks, have been received I have been instructed to inform you that the Board does not approve your recommendation to take down part of the foundation:

If it will be necessary in any event to purchase 100 000(sic) brick for the completion of the Lt. House I have been instructed to authorize you to purchase the Danver's brick, but if there are enough bricks already purchased to complete the Lt House the expenditure is not authorized.

Very Respectfully

W B Franklin
Secretary

Lieut J. St. C. Morton
Corps Engineers
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858, p. 15

Eng'r. Office 3rd/Lt. H. Dist.
April 12th/58

Capt. Wm. B. Franklin
Secr'y. Lt. House Board
Washington, D.C.

Sir

I this morning received your letter of the 10th inst.

As you do not sanction the changes I proposed in the Foundation of the Fire Isd. Lt. House, I will proceed with despatch on the original plan.

No time has been lost by my suggestion, as the work went on without interruption while I was expecting your reply.

Tomorrow morning I send a large increase to the force at Fire Island, and this evening all the stuff, cement &c. starts for Great West Bay, on sailing __________.

To make sure of the foundation at Fire Island I propose to put a double number of the iron bands used by Lt. Duane, in the lower ten feet of the tower: these bands you will recollect are embedded in the brick work, and effectually prevent any spreading or cracking: the additional expense will be very little, the bands or anchors being made on the spot, and the additional strength will be very considerable.

I propose to start tomorrow on a tour as far East as Beaver Tail Lt. House: I expect to meet at Newport the former ________ at the Watch-hill Pt. Lt. House, whom I will immediately set to work building the sea wall at the latter place - I have the plan that has been approved by the Lt. House Board (last October).

I will build it in sections, so that whenever I have to stop, for want of money, the portion built will be complete & durable.

I have already come to a partial understanding with the contractor who furnished stone for the sea wall at Lynde's point: he is waiting for me to fix upon the locations and extent of the wall, when he will commence immediately: it is rather early for such work at present as there is some ice formed occasionally at exposed points of the coast.

I am very respectfully

your obed servt.

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 553

APPENDIX C43.

Engineer Office Lt. H. Dist.
43 Cedar St. Apr. 12th/58

Mr. Jas. L. Ames
Chicopee Mass.

Sir

In July/57 there was manufactured by you, or rather, ? by Capt. Franklin, a 1st/order Lt. H. Lantern, which was destined for the Fire Island Lt. House -

I write to request you to send the lantern (as per description Invoice of Fed. 28th/57) time, as I wish to send it to Fire Island.

I request that you will have it here by next Saturday or Monday, as I will then be able to take it at once on board-vessel, and to save handling & storage expenses on it.

I find by your letter of July 28th/57 that you undertook to store the lantern at a moderate charge- please send the bills for storage, and freight to this place and I will settle them immediately -

Very respectfully
Jas St C Morton
L H Engr.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 210

Treasury Department
Office L.H. Board
April. 14. 1858

Sir

Your letters of the 12th/inst have been received and laid before the Board. Your recommendation of an increase in the number of iron bands in the lowest 10 feet of the Fire Isld tower is approved & you are authorized to carry it out.

Your quarterly report of operations in the lamp shop has been received and your suggestion as to placing cost of time & materials opposite each article is approved

Very Respectfully

W.B. Franklin
Secretary

Lieut J. St. C. Morton
Corps Engr.
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858, p. 18

Treasury Department
Office L H Board
April 15, 1858

Sir

I enclose herewith a bill of items of a 1st/ order apparatus, revolving 60" - 60" designed for Fire Island Lt. House, which you will please retain for reference when the cases are opened.

Very Respectfully

Comdr. T.N. Jenkins
Secretary

Lieut. J. St. C. Morton
Corps of Engineers
New York
N.Y.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858, p. 17

Eng'r. Office 3rd. Lt. House Dist.
N.Y. Apr. 19th/58

Capt. Wm. B. Franklin
Sec'y. Lt. House Board
Washington, D.C.

Sir

I have just returned from the Eastward where I visited the Newport Harbor, Lime Rock, Beaver Tail, Stonington, and Watch-Hill Lights; Providence & Westerly.

I have to acknowledge your letter of the 14th; & Com'd Jenkins' letter of the 15th, enclosing "Bill of Items &c. for Fire Isd. Light."

I respectfully recommend that I may be authorized to bore an Artesian Well at Beaver Tail.

The wells on the island draw their water in scanty quantities from the accumulation on the top surface of a slaty rock, which does not contain any water at any ordinary depths:- but in this there must be seams which will give large quantities of water.

On the main land, west of Beaver tail an Artesian well 70 feet deep has been bored & gives a large supply -

I called on a man (__________) in Providence who offered to bore a well immediately for $4.50 per foot if the rock does not grow harder than the sample I showed him. He will ensure getting water, if allowed to bore as far as he chooses, that is, take no pay if he does not get it: but there is every 'chance' of getting water inside of 70 feet.

There appears to be general desire for the Fog whistle in that district, and there is nothing but the water wanted: the machine is a fine one and in good order.

I have made all preliminary arrangements at Watch Hill and will commence landing materials and the work in a week. As I cannot find the dimensions of the stones of the sea wall laid down in any of the memoranda in this office, I propose to take the same size as was fixed on for Saybrook Pt. Sea Wall; I can get them roughly (but sufficiently) dressed and delivered, at probably 50 cts. a foot, from Westerly.

I leave to-day for Saybrook with Capt. Dution's Contractor, to conclude an agreement and lay out the work for him on the spot.

P.S. I have the Fire Isd. Lt. Apparatus in this city, from Chicopee. I send it today to Fire Island to save storage.

I am glad to state that the concrete samples that I took from the F.I. foundation have become much firmer, and quite hard in fact, by being allowed to set in a warm room.

You will recollect that I proposed to wait the issue of this trial before taking up much of the concrete.

Very respectfully

your obed. servt.

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 557

APPENDIX C47.

April 20, 1858

Extracted from a letter from Secretary of the L H Board to Engineer:

"Drawings of a lantern very nearly like that of Fire Island will be sent to you when you require them."

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858, p. 21

Eng'r. Office 3rd Lt. H. Dist.
N.Y. April 23rd/58

Capt. Wm. B. Franklin
Sec'y Lt. House Board
Washington, D.C.

Sir

It will be a great convenience to me this summer, and save trouble in making and sending estimates, if I could be supplied shortly with the whole of the available balances of the following appropriations -

Lynde's Point

Watch Hill

Newark Bay (Bergen Pt. Lt. House)
(Passaic)

& Fire Island

I have to request therefore to be informed whether, if I make out estimates for the whole balances referred to, they will be approved - if so I will immediately send them on.

I am,

Very respectfully

Your obed. servt.

J. St. C. Morton
Lt. Eng'r.

P.S. I have to acknowledge your letter of the 20th inst.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 560

APPENDIX C49.

May 1st 58

Comd. T. N. Jenkins
Sec'y. Light House Board
Washington, D.C.

Sir

I enclose herewith

General Estimate for	$1,400.-	on	acct.	of	Supplies of Lt. Houses -
Estimate	$2,733.55	"	"	"	Rebuilding Fire Isd. Lt. House
"	$3,000.-	"	"	"	Rebuilding &c. Passaic Lt. House
"	$3,000.-	"	"	"	Rebuilding &c. Bergen Pt. Lt. House
"	$2,000.-	"	"	"	Preservation of site ____, Watch Hill
In all	$12,133.55				

I am sir

very respectfully

your obed.servt.

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the Light-House, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 564

May 11 8

Capt. W B Franklin
Secretary L.H. Board
Washington, D.C.

Sir

I presume that when the new tower at Fire Island is completed, it will be necessary to supply the keeper with a clock similar to those used at the other light houses in this district; and it would be very convenient.for me to have one sent to that place, at once for the use of the overseer -

The Inspector informs me that he has none of these in store at New York -

I have therefore to request that I may be authorized to purchase a good time piece, and have it sent to Fire Island, unless there is a clock at some other place, belonging to the L.H. Establishment which can be spared for this purpose.

Very respectfully your obt svt.

J St C Morton
L H Engr

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Engineer to Light-House Board, p. 236

APPENDIX C51.

Washington, D.C. May 27, 1858

My dear Morton

I have received your letter of the 26 inst. I think you are getting along very well with the Fire Island work, and as you are up 20 feet now, and are through with the cutting of the brick. I think you can average nearly if not quite a foot a day hereafter. This would about finish the brickwork by the first of October. But is is not possible to get the lantern & apparatus up by that time, so that we can light up on October 1? If you think it is, send on a description of the tower giving its position with reference to the old tower and such other facts as ought to be printed in the notice, and it will be printed here over your name. The color is to be yellow. This is to make it different from Shinnecock Bay or Great West Bay L H. and from Barnegat L H. on the Jersey shore. You can experiment on the tower part of the tower to determine what will be the best wash & coloring matter. Lime is preferred to make the wash, not only on account of first cost, but because the expense of keeping up the color with paint is constant and much larger than it is with lime. Yellow ochre is a good color, and a little salt mixed with the wash makes it set well and gives a glaze to it. It might be well to try the effect of mixing cement with the lime in small proportions.

If you find you cannot get ready to light up by October 1 fix the date as near that time as possible. Send on the data for the notice at any rate, as soon as possible. I am sorry Coates' visit is not convenient here at present, but we are too much engaged now to be able to attend to the lamps if he were here. I want to get up some arrangement by which we can apply the small lenses to Light vessels. Ask Mr. Coates to think about it, and we will settle upon something when I go on.

The arrangement you suggest for the June payment at Fire Is. will answer very well, so go on, with the understanding that we will furnish you money as soon after July' as possible. In all probability by the 6th/ as you suggest.

With regard to the photograph, you can judge whether or not it is extravagant. We will be glad to have one of Great West Bay Establishment if it can be obtained at a reasonable price, but those fellows are so apt to be exhorbitant when they have to leave their place of business to do any work. If you have the thing done we will want say twenty copies here. You might enquire & I will talk with you about it when I see you in N.Y.

Truly yours
W.B. Franklin

Lt. J. St. C. Morton, Corps Engr.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858, pp. 56-58

May 27th 8

Capt. Wm. B. Franklin
Sec'y Lt. House Board
Washington, D.C.

Sir

In obedience to your instructions (in a memorandum accompanying the French Moderator Lamps destined for Fire Island), I have thoroughly tested the lamps in question.

I had one of those mounted in this office, where I can constantly observe it, and the other two are tested by Mr. Coates.

The one in my office has been run, with oil, for perhaps three weeks, and for about three days has been kept burning -

The result has been that I have come to the following conclusions. 1 - The Moderator Lamps are subject to a chance of irregularity, in the possibly defective workmanship of the cylinders and plungers: (in the Lamps for Fire Island this part of the Lamp, like the rest, is nearly perfect). 2 - They are not adapted for burning the quality of oil used in the U.S. Lighthouses, from the existence in the latter of minute filaments of cotton, which collect around the aperture into which the Moderator's needle passes to regulate the flow: I found that lamps in question needed cleaning out at the point specified every day; otherwise the burning was irregular and there was a probability it might have ceased entirely.

This is not a defect, provided the Light Keeper's were sensible and careful enough to clean the tube every day; but the generality of Keepers will not take the trouble, and it becomes a great objection to the Lamp.

I also have had in operation, both running with oil, and burning, the 1st Order Hydraulic Lamp manufactured by Mr. Coates recently.

It has been burning alongside of the other in this room, and has run with astonishing regularity: I have observed it for two weeks whenever I have been in the office, and have never observed the least variation of the steam of oil.

The Hydraulic Lamp appears to be a great improvement on the Moderator, from its burning our oil without ever needing cleaning; or at most, about 4 times a year.

I am sir

Very respectfully
Your obed. servt.

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the
Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 70, page 576

July 3rd 58

Comdr. T. N. Jenkins
Sec'y. Lt. House Board
Washington, D.C.

Sir

I have the honour to enclose a description of the Fire Island Light House, as it will be on the 15th October next.

The description of the Light, possibly requires correction, though I believe that it is right.

The French description, which came with apparatus, is "de lse ordre a Eclipses et Eclats de 60" en 60"; and also "appareil catadioptrique a Eclipses et Eclats prolonges de 60" en 60"."

I have no accurate table for computing the distance at which the Light will be visible, and therefore leave that item blank, supposing that you will have no difficulty in filling it ______.

I am

very respt.

your obed. servt.

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 86, page 362

NOTICE TO MARINERS.

FIRE ISLAND LIGHT-HOUSE.

LONG ISLAND, NEW YORK.

New Light-house Tower, 150 feet in height, fitted with a first order revolving Fresnel lens illuminating apparatus.

On the evening of Monday, the 1st day of November next, a *first order revolving light* will be exhibited for the first time, and on every night thereafter from sunset to sunrise, from the light-house tower now in course of erection at Fire Island Beach, east side of Fire Island inlet, south side of Long Island, N. Y. The illuminating apparatus is of the first order revolving catadioptric of the system of Fresnel, and will produce a brilliant *flash once in every minute,* which will not be materially different in appearance from the existing light in the old tower at that place, except in the greater brightness of the flash and increased range of the new light.

The light-house tower, which is placed about 200 feet N. E. from the old light-house tower, is built of brick, will be 150 feet in height, of a cream or yellow color, and the light will be about 166 feet above the mean level of the sea.

The old light house tower and keepers' dwelling will be removed immediately after the exhibition of the light from the new tower.

The new light should be seen in ordinary states of the atmosphere, from the deck of a vessel 15 feet above the water, from 21 to 23 nautical miles.

Approximate position of the new light-house tower:

Latitude,	40° 37′ 53″ North.
Longitude,	73° 12′ 51″ West.

Distances from Fire Island light-house, to—

Montauk Point Light-house,	67½	nautical	miles.
Great West Bay Light-house,	35	"	"
Sandy Hook Light vessel, -	31	"	"
Navesink Lights, - - - -	37½	"	"
Barregat Light-house, - -	66	"	"

By order of the Light-house Board:

J. ST. C. MORTON,
U. S. Corps Engineers.

ENGINEER'S OFFICE,
Third L. H. District, New York, July 3, 1858.

July 12th 58

Capt. Wm. B. Franklin
Sec'y Lt. House Board
Washington, D.C.

Sir

The two Moderator Lamps, originally destined for Fire Island, are now packed, and ready for shipment to Portland for the improvements you proposed in the cylinder and plunger.

I may have given you the impression that the Lamps in question were not of accurate finish in the parts referred to, but if I did it was unintentionally.

I think the Lamps are as good as any of the kind, and the experiments in the shop showed that all the difficulty in running them would lie in the tube and moderator.

I would respectfully suggest therefore that these two Lamps should be kept here, packed up, so as to send to any place where new Lamps are needed; or be sent at once to the Lighthouses you refer to (without specifying them) on the N.E. coast.

During my visit, (on the 9th), to Fire Island, I inspected the experimental washes of cement on the brickwork of the Tower, and have concluded that two coats, making a layer of about 1/8 inch thick, will render the tower impervious to water.

I will have different colourings tried until I find one which will give an agreeable cream yellow colour.

In a day or two I will send you an estimate of the cost of this sort of coating per sq. yard; and of a similar coat of Roman Cement.

I propose to apply this method at G. West Bay, Lloyds Harbor, and Fire Island.

As soon as you will inform me whether you approve it, I will send in the estimate for Lloyds Harbour: a cream colour willlook well there; and at Great West Bay, the brick colour can be obtained by mixing umber with the cement.

I am very respc't

your obed. servt.

J. St. C. Morton
Lt. Eng'r.

P.S. I have to acknowledge the following Dep't Letters: viz your letter of the 19th & 23rd, and Capt. Jenkins Letter of July 6th.

J. St. C. M.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 86, page 365

Treasury Department
Office Lt. Ho. Board
July 14, 1858

Sir.

In answer to your letter of the 12th/ inst. on the subject of the repairs of the Lloyds Harbor Lt. House - I have been instructed by the Board to inform you, that you are authorized to make the repairs suggested at the cost mentioned: viz $200.

The pistons of the first order lamps, for Fire Island Lt. House are I think improperly constructed - I wish to have them improved by the introduction of a valve, and some other alterations which I can have made at Portland by a person who has altered others -

Your suggestions as to the coating of Fire Island, & Great West Bay Lighthouses are approved, & you are authorized to carry them out according to the tenor of your letter on the subject.

There has been no intention of changing the character of New London Light - The matter will be examined by the Board and you will be further instructed with regard to it -

Very Respectfully

W.B. Franklin
Secretary

Lieut J. St. C. Morton
Corps Engrs.
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858, pp. 81-82

August 14th 58

Capt. Wm. B. Franklin
Sec'y Lt. House Board
Washington, D.C.

Sir

I believe it is your intention to have the Old Tower and Dwelling at Fire Island torn down on the 1st of November next.

I have therefore proposed to tear down the stone part of the Dwelling at once, in order to use the stone in building the foundation of the new Dwelling.

The old Tower will furnish the stone for the superstructure of the new dwelling, but it will of course not come in play this season -

The light keepers can live in the workmen's shanty this winter, and I will have it made perfectly tight and comfortable for them - The Oil room shall be built next the tower of the brick, as there will be enough for that left: the oil room forms a part of the new Dwelling, but I can build it sufficiently to answer the purpose, with a temporary roof, during the winter -

The above arrangement seems the best I can make, and there is but one objection to it.

The present Keeper is disinclined to live in the frame part of his house till he moves into the shanty. In this he is wrong, as the frame is comfortable enough except in winter, and when that comes, he can move into a good tight shanty, nearly as convenient as his house.

Should you approve of my arrangements, I would request that the Keeper may have orders to move out of the stone part of his house at once.

I am Sir

very respectfully
your obed. servt.

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 80, page 385

Treasury Department
Office LH Board
Aug. 16, 1858

Sir

Your letter of the 14th/ inst. on Fire Island Lt. House has been received.

I have been instructed by the Board to enclose you an order to the Keeper to vacate his house when required by you.

In making temporary quarters for the keepers for the winter, it should be remembered that there will be one keeper and two assistants required for the light and quarters will be necessary for them all.

Give the Keeper as much notice as possible when you require him to leave his quarters.

Very Respectfully

W.B. Franklin
Secretary

Lieut J. St. C. Morton
Corps Engineers
New York

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858, p. 108

August 23, 1858 Letter to Morton from W.B. Franklin

"make your arrangements for building the Fire Id. dwelling this Fall. I think there will be no trouble about them" (p. 113)

W.B. Franklin

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1858

APPENDIX C60.

Aug. 27th 58

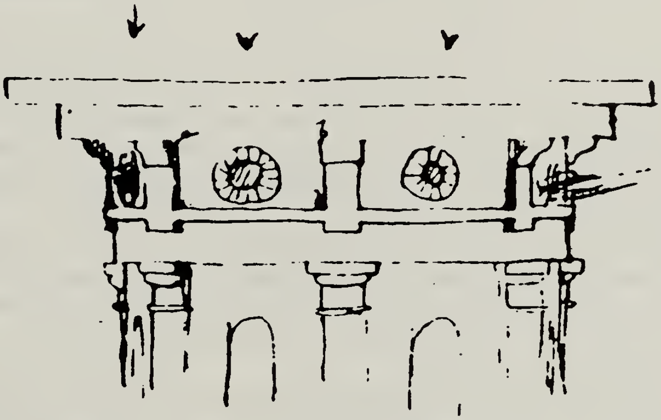
Mr. Ed. Hall
Supt. Fire Isd. _____

Dear Sir

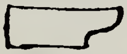
Yours of the 26th is at hand

I want you to make 3 round windows one foot diameter each; one to be above the row of windows on the N. side or opposite side from the door into the tower and one on each of this, over the blank windows.

The centre of each window is to be in the exact centre of the space between the brick belt and the lower course of the cornice, and in the space between the projection.



The above sketch shows where I want the 3 windows - viz. in the centre of the spaces a-b-c-d.

In speaking of the lower cornice of the cornice, I do not mean the corbel stones - () but the continuous course.

Yours respectfully

J. St. C. Morton
Lt. Eng'r.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. , page

September 30, 1858

Fire Island

Here has been performed the most important work which I have been charged with viz: the erection of a 1st order Light House Tower, and Keeper's dwelling. The tower is of Brick, with a granite cornice, and rests upon a foundation of concrete faced with granite. There is a map of concrete under all the above, which is 6 feet thick and 50 feet in diameter, and thus gives an ample bearing and support to the superstructure.

The bed of this concrete is about a foot below low water; and the brick work of the tower commences at the level of 14 feet above mean tide.

From the foot of the tower proper to the top of the cornice is 140 feet, and the focal plane of the lens is 12 feet above the last mentioned level, so that the light is about 166 feet above the mean level of the sea.

A substantial stone dwelling of one story and attic has also been built containing a large oil room, and separate quarters for 2 keepers and their families. This communicates with the tower, and with the exterior as well as with the main hall of the dwelling.

There is a terrace around the entire premises which is embanked to the level of 13 feet above mean tide. This terrace is retained by a wall of dry stone masonry, the materials of which were obtained from the demolition of the old tower and Keeper's house.

The tower is round and tapers very rapidly below, the batter however diminishes until the upper portion runs up nearly cylindrical. The curve used to determine this shape was a hyperbolar.

The cornice is of the Doric order, and is joined to the tower by six pilasters which spring vertically from the inclined face of the tower.

The tower is ascended by spiral stairs; the treads of cast iron open work, rest on wrought iron pieces and these are supported by the cylindrical wall of the tower and by a cast iron central hollow column.

The tower is fitted with illuminating apparatus of the 1st. order revolving catadioptric of the system of Fresnel which produces a brilliant flash (of white light) once a minute. The weights belonging to the clock work descend inside of the central iron column.

Report to the Light-House Board
by the 3rd Light-House District
National Archives RG 26

Nov. 4th 58

Cpt. Wm. B. Franklin
Sec'y Lt. House Board
Washington, D.C.

Sir

I have learned by means of a letter from the New York Collector to Comdr. Radford that there has been considerable damage done to the brush facing of the sand beach on which the Block Island Light is situated.

The brush facing was an inclined plane of branches and twigs set into the sand at the foot, and tied into the bank on top, and appeared to me when I inspected it last summer, to be intended mainly to keep the sand from blowing away, and not as a defense against the waves -

An extraordinarily high tide and N.E. storms have together washed it away as they would any defense of that kind, new or old.

I report the case without recommending that anything be done this season to repair damages; I think it had better be left alone at any rate - for the natural regimen of the sand point will soon be regained and the same causes that caused its formation will keep it from being diminished; while the cost of preserving it, if the sea is really encroaching upon it, would pay for several new Light-Houses.

I am pleased to report that the _____ _____ at S.W. Ledge has been faithfully made, and set, and that it appears to give great satisfaction. It has been by anticipation, but in the latest list.

I intend to leave for Fire Island this afternoon: the Light was duly exhibited on the 1st inst. and burned excellently: I hope to carry with me to Washington a photograph of the Establishment in a week or so.

The new light at Little Gull was exhibited on the 29th and it also is very satisfactory. Those at Norwalk & Great Captains are likewise working well with the new apparatus.

I am sir

Very resp.
your obed. servt.

J. St. C. Morton
Lt. Eng'r.

P.S. I have to acknowledge the receipt of your letter of the 2nd.

J.St. C. M.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 86, page 414

Dec. 8, 1858 Letter to Morton from W.B. Franklin

"The other items I am unable to form an opinion upon but the item for slating at Fire Island appears to be additional..." (pp. 154-155)

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives Rg 26
Letters from the Light-House Board to the Engineer, 1858

APPENDIX C64.

Return of tools, machinery and other public property in charge of Lieut. J St C Morton Corps. of Engineers & Engr 3d Light House District -

January 1 1859

At Fire Island Lt. House

3 Pine Tables with drawers
2 small Do
4 Chairs
2 Benches
1 Stove & Pipe
1 Desk
1 Fluid Can & Lamp
1 Tape Line
12 New White Wash Brushes
2 old Do
28 prs 3-1/2" Iron Butts
2 prs 3-1/2" Brass Do
2 papers 1-1/2" Brads
1 Gro Screws
1 doz Door Stops
1/2 doz Knob
1 Brass Door Lock
3 14" Flat ?
1 Spike Maul
1 Narrow Axe
1 Marking Pot & Brush
1 Screw Wrench
8 lbs. Raw Sienna in cans
9 " Burnt Do " "
11 " Do Umber " "
18 Paint Brushes
1-1/2 gal Varnish
1 Keg & 2 Cans Putty
3/4 Keg Ivory Black
1/2 " Red Lead
2 galls Boil'd Oil in 4 Cans
6 Tin Lantern
11 prs. Smiths Tongs
13 Punches & Eye Pins
1 Cold Chisel
6 Heading Tools
1 set Shoeing Tools
2 Cutters for Anvil
2 Splitting Chisels
4 Hammers
1 Round Swedge
1 Sledge
2 Taper Saw Files
6 lbs Sulphate Zinc
1 Rasp
2 Cocoa Dippers
7 Paint Brushes
1 Trumpet
1 Sell
5 lbs. Glue
1 Glue Kettle & Brush
1 Broad Axe
3 Hoe Handles
1 Steel Square
1 Trowel
1 Watering Pot
3 Pails
5g Stone Cutters Tools
1 Triangle 3 ft. 7/8 steel
1 DO 60 1-1/2 Do
2 Tubs
1 Bellows & hangings
1 Tuyere Iron
1 Tap Wrench
1 Set Stocks & Dies
1 Drill Brace & Drills
2 Mandrills
1 Branding Iron
1 lot Scrap Iron
1 Forge Rake
1 " Shovel
1 " Poker
1 Anvil
1 Vise
1 Bitch
1 Fuller
1 prs Callipers
4 Gripes
1 Sgnace (?)
2 Coal Boxes
6 Files
1 Small Wrench
1 Large Do
1 Water Pail

1 Lot old Iron, Lantern -
18 Bbls Cement
3 " Lime
1 Capstar
1 Sand Screen
1 Mortar Seive
45 Old Sash
3 Hoist Buckets
3 Do Do heavy
12 Bundles Rope
16 Do Ratline 1/2 good
3 Bags Hair
1 Tin Dome Cover
1 Pitch Fork
7 Hoes
16 Shovels
5 Crow Bars
3 Pinch Bars
Clock weights
1 Barrel Beaver
1 Iron Mortar Tub
1 Pick Axe
11 Wheel Barrows
1 Barrow Tray
24 Blocks
9 Bundles Lath
2 Rail Cars
1 Pole & Whiffle Tree
1 pr Shafts
2 Pails
1 Hammer
1 Hand Axe
200 Spruce Poles
100 2 " " Plank
150 Foot Locks
25 Masons Trupes
8 ton Bricks
3 pieces Mast
2 Crop Trus
1 Broom
2 Wooden Pumps
2 Ladders
Lot Old Plank
3 Dining Tables
10 Benches
6 Stools
20 Bedsteads
3 Wooden Buildings &c

A similar list appears October 1859, pp. 132-134 and June 30, 1859 pp. 49-51.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939.
National Archives RG 26
Letters from Engineer to Light-House Board, pp. 434-436.

APPENDIX C65.

April 26th, 1859

Estimate for a new Tower and Dwelling at Montauk Pt. Tower 80' 7" high - conical - with hollow walls - plan identical with that of Great West Bay Tower except the height is less, & the cornice suppressed, & supplied by balcony.

In this estimate several references are made to Fire Island Light House, as follows:

1 Iron Girder same as at Fire Island	19.13
2 Iron Columns same as at Fire Island	70.00
2 Flights Stairs as at Fire Isd	70.00

Cranes machinery or from Fire Id Watch Hill 500.00
(Hoisting machinery cordage &c on hand at Fire Id Watch Hill.)

(*Iron stairs as at Fire Id will cost $957.44)

Warning apparatus as at Fire Id 32.50

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Engineer to Light-House Board, April 26, 1859 to January 17, 1865, pp. 3-4

APPENDIX C66.

ANNUAL AND MONTHLY REPORTS TO THE LIGHT-HOUSE BOARD FROM THE ENGINEER AND INSPECTOR THIRD DISTRICT

1860's

1862 Fire Island. The tower needs painting with 3 coats of oil paint; the pump needs repairing; and a closet is required in the oil room. The lantern needs curtains. The outside woodwork of dwelling needs painting. Estimated cost..... $450.00.
(Annual Report for the year ending September 30, 1862, P. 31. Work recommended to be done.)

1863 Fire Island. Repainting tower and dwelling with oil paint, repairing pump, and putting up closet in Storeroom. $475.00.
(Annual Report for the year ending September 30, 1863. Estimates for next season, p. 135.)

1865 Fire Island. The outside of the tower at this Station was thoroughly scraped of the yellow wash; imperfect brick were replaced by sound ones, the joints were scraped and repoint6d with cement mortar and the whole outside was painted with three coats of oil paint. The iron stairs also were repainted, and a sett [sic] of heavy springs was placed inside the newell to guard against further accidents by the falling of the clockweight.

The stonework on the keeper's dwelling was repainted, the woodwork repainted and the stone flagging around the buildings were relaid in cement mortar.
(Annual Report for the year ending September 30, 1865, P. 572.)

1866 7. Fire Island. The slate roof of the keeper's dwelling having been injured by a gale, had the damage repaired.
(Annual Report for the year ending September 30, 1866, pp. 140-141.)

1867 Fire Island. The roof of the keeper's dwelling was repaired and new cellar doors and steps provided. (Monthly Report for August 1867, p. 71.)

1868 145. Fire Island, New York. This Station is in good condition.
(Annual Report for the year ending September 30, 1868, p. 36.)

1869 144. Fire Island Light House. The tower is in good condition.
The keeper's dwelling requires light repairing which will be attended to. A new well pump has been furnished.
(Annual Report for the year ending September 30, 1869, p. 212.)

Office Lt. H. Engineer 3d Dist.
Tompkinsville May 5th 1865

Sir,

The principal Keeper of the Fire Island Light House reported to the Lt. H. Inspector of this Dist. that by a recent break of the clock cord, the iron newell, which supports the stairway, suffered serious damage. In consequence of the report I visited the station on April 27th, and have the honor to submit the following report.

The clockweight which runs within the iron newell is stopped by the means of two iron bars running crossways through the newell. In consequence of the parting of the clockcord the falling weight broke the two bars and also knocked pieces out of the newell, which is a main support of the iron stairway. To repair this damage, and to prevent similar destructions in future, it is recommended to put an iron band around the newell at the injured place, to replace the broken bars by new ones and to protect the same by a spring sufficiently strong, to counteract the force of the falling weight.

I have also to report that the roof of the lantern leaks on the N.E. side and needs repairing and repainting. The iron stairway also needs repainting.

As stated in my annual report and before, the yellow wash on the outside of the tower has to a great extent disappeared, especially so on the sea side, thus causing the tower to appear to mariners like that at Great West Bay. The tower on the N.E. side also requires repointing, some soft brick ought to be replaced by new hard brick previous to rewashing the tower.

The roof the Keeper's dwelling has suffered by heavy gales during this spring. Quit (sic) a number of the slates, as also a part of the ridge lead were blown off. As the repairing of the roof admit of no delay, I have sent a roofer to repair the damages. The stonework on the N.E. side of the dwelling admits the rainwater which besides making the house uncomfortable, destroys the plastering. Repointing on this side is required immediately. The woodwork on the outside needs repainting, the pump of the well needs repairing. The boat requires repainting and her sails repairing. The landing is falling to pieces, the ice of last winter has carried away the front piles and part of the timber.

Refering to my last annual report on this subject and also to the estimate of cost being a part of the report I respectfully request your authority to take these repairs in hand during the present season.

Com. L. W. Powell Inspector of this Dist. has also been informed of the condition of this Light Station.

Very Respectfully

Your obt. servt.
Joseph Lederle
Actg. Lt. H. Engr. 3rd Dist.

Rear Admiral
W. B. __________
Chairman Lt. H. Board
Washington, D.C.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 168, page 467.

May 13, 1865

"... reporting repairs required at the Fire Island Lt.

Authorized."

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 3, page 434

Treasury Department,
Office of the Light House Board,
Washington, May 20, 1865.

Sir:

You are authorized to repair the Fire Island Light House, as per your letter of May 5th.

Very Respectfully
W. B. Shuburt
Chairman

Jos Lederle, Esq.
L.H. Engineer
Tompkinsville, N.Y.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to Engineer, Vol. 5
July 26, 1864 to October 10, 1866, p. 68

Treasury Department,
Office of the Light House Board,
Washington, March 22, 1866

Sir:

Your two letters of March 19th/ relative to repairs at Fire Island and Montauk Light House, is received. No further work can be authorized until appropriations are available.

Very Respectfully
O. M. Poe
Engineer Secretary

Jos. Lederle, Edq.
L.H. Engineer
Tompkinsville Staten Island
N.Y.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to Engineer, Vol. 5
July 26, 1864 to October 10, 1866, p. 149

Office Lt. H. Engineer 3d Dist.
Tompkinsville, Jany. 23, 1868

Sir,

There being no reliable data on file in this Office from which the information requested in your letter of January 22 could be derived, I have to request your authority to visit Fire Island Light Station for that purpose.

I enclose herewith a tracing showing the plan of the tower & Keeper's dwelling which are connected with each other. The two centres therefore are only about 55 feet apart.

Awaiting your further instructions I remain

Very respectfully

your obt. servt.

Joseph Lederle
Act. Lt. H. Engr.

__________ Poe
Engr. Secrty. Lt. H. Bd.
Washington

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 210, page 432

Treasury Department,
Office of the Light House Board
Washington, January 27, 1868

Sir:

In reply to your letter of the 23rd/ instant in relation to the bearing of Fire Island Lt. House tower from the keeper's dwelling and enclosing a tracing, I would say that the object in calling for the information, was to have a view of the station engraved upon a Coast Survey Chart.

The photographs of the Station, now in the office are not sufficient.

If the bearing referred to cannot be procured in any other way, you are authorized to visit the Station for the purpose of obtaining it.

Very respectfully
____?____ Harwood
Naval Secretary
for Engr. Secretary

Joseph Lederle Edq.
Acty Lt. H. Engineer
Tompkinsville
N.Y.

Field Records of the Light-House Board and Bureau
Records of Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Light-House Board to Engineer, Vol. 7
November 15, 1867 to August 10, 1868, pp. 54-55

APPENDIX C73.

Office Light House Engr. 3rd Dist.
Tompkinsville April 7, 1868

Sir,

Complying with your instructions of January 22nd 1866 I forward herewith enclosed a tracing showing the outlines of the tower and keeper's dwelling at Fire Island Light Station with the magnetic bearing of the centre of the tower from the centre of the dwelling.

A copy of this tracing was this day sent to the Superintendent of the Coast Survey Washington D.C. as requested.

Very Respectfully

Your obt. servt.

Joseph Lederle
Actg. Lt. H. Engr.

__________ Poe
Engr. Secrty. Lt. H. Board.
Washington, D.C.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 210, page 635

APPENDIX C74.

ANNUAL AND MONTHLY REPORTS TO THE LIGHT-HOUSE BOARD FROM THE ENGINEER AND INSPECTOR THIRD DISTRICT

1870's

1870 150. Fire Island. Seacoast of Long Island. Slight repairs to the dwelling and a new pump are required at this Station. The repairs will be made before the end of the season and a pump will be furnished. (Annual Report for the year ending September 30, 1870, p. 212.)

Fire Island. A new pump was provided for the well at this Station.
(Monthly Report for October 1870, p. 265.)

1871 170. Fire Island, Long Island. The outside painting on the tower is very defective and does not appear any more in the color as represented in the Light-house List. Many bricks are decayed and require to be replaced with sound hard brick and this done the tower is to be repainted. Speaking tubes and an alarm bell are also needed to communicate from the watchroom with the Keeper's dwelling. Other slight repairs are also needed at this Station. (Annual Report for the year ending June 30, 1871, p. 330.)

Fire Island. Repointing and cement washing the exterior of the tower at this Station, and repainting of the stonework of the Keeper's dwelling.
(Monthly Report for September 1871, p. 425.)

Fire Island L.I. This Station has been repaired, the tower repainted and crumbled brick replaced. A cement wash of Portland Cement two coats, has been applied. Speaking tubes and alarm bell have been attached to the tower.
(Monthly Report for October 1871, p. 431.)

1872 174. Fire Island L Isld N.Y. New pump has been placed at the Station and the tower cement washed in yellow color. (Monthly Report for October 1872, p. 299.)

1873 180. Fire Island Lt. Sta. The pier or foundation of the light house has been repaired and a fence surmounting the pier is in progress of erection.
(Monthly Report for May 1873, p. 119.)

180. Fire Island Lt. Sta. The fencing at this Station has been completed.
(Monthly Report for June 1873, p. 214.)

180. Fire Island, Long Island, New York. A 1st/order flashing white light, Funck lamp, exhibited from a brick tower with keeper's dwelling attached.
Wash on tower to be renewed; a storeroom should be put up, and the closet in the oil room enlarged by being carried up to the ceiling; cisterns need cleaning out, and pumps to be put in proper order. (Annual Report for the year ending June 30, 1873, pp. 32-33.)

180. Fire Island Lt. Station. No work has been done at the above station during-the month. The balance of appropriation for the repair will be needed for work to be done as soon as the mechanics can be spared elsewhere. (Work Scheduled for Sauds Point and Great West Bay, as well.) (Monthly Report for November 1873, p. 153.)

180. Fire Island Lt. Sta. N.Y. Small repairs have been made to the pump platform and new pump furnished. The balance of special appropriation is required for coloring and recementing tower next spring. (Monthly Report for December 1873, p. 298.)

1874 180. Fire Island Lt. Sta. The small balance of special appropriation is needed for repairs to be made as soon as weather permits and for part payment of contingent expenses of this office. A new pump and platform have been erected at Fire Island Lt. Sta.
(Monthly Report for January 1874, p. 443.)

180. Fire Island Lt. Station (and Great West Bay). The balance of the special appropriations is needed for recoloring the towers of these stations and for proportional part of contingent expenses of this office. (Monthly Report for February 1874, p. 53.)

180. Fire Island Lt. St. Cement and coloring matter have also been sent to this station for cement washing the tower re the work to be attended to during the month of May.
(Monthly Report for April 1874, p. 202.)

183. Fire Island. At Fire Island orders have been given for cement washing the tower and attending to certain carpentry work in fitting additional closets, etc.
(Monthly Report for May 1874, p. 247.)

183. Fire Island. Some repairs have been made to the roof of the dwelling - closets have been made in the oil room, and lantern room, for tools, stoves, towels, cleaning materials etc.
Locks etc. of the building repaired and three coats of paint to the buildings throughout, besides the pointing and cement washing of tower and building.
(Monthly Report for June 1874, p. 355.)

183. Fire Island. New York. A 1st/order flashing white light, Funck lamp, exhibited from brick tower with the keeper's dwelling attached.
The lightning conductor is not properly led. The tower needs yellow wash and leaks badly. The walls in the assistant keeper's dwelling require repairs. Fairly Kept.
(Annual Report for the year ending June 30, 1874, pp. 139-140.)

183. Fire Island, New York. The repairs at this station authorized under the act of June 10, 1872, have been completed, and the station placed in good condition.
(Annual Report for the year ending June 30, 1874, p. 14.)

1875 187. Fire Island, New York. A 1st/order lens; Funck lamp. Repairs made. New rudder to boat; solar lamps repaired.
Required.
Kept in good condition.
(Annual Report for the year ending June 30, 1875, p. 309.)

187. Fire Island Light Station. New chimney cap has been set up and stove pipes adjusted and overhauled. Measurements made for repairs &c, of revolving machinery of lens, and roof of lantern patched. (Monthly Report for October 1875, submitted November 9, 1875, p. 341.)

1876 190. Fire Island Lt. Sta. Some painting of inside work has been attended to by the Keepers. (Monthly Report for April 1876, submitted May 12, 1876, p. 407.)

190. Fire Island Lt. Sta. The materials have been ordered for resheathing the watchroom floor and repairing the lantern roof and the chariot rollers are being prepared for the repairs of the lens apparatus; - the work will be done during the month of June.
(Monthly Report for May 1876, submitted June 15, 1876, p. 424.)

190. Fire Island Light Station. The watchroom floor has been resheathed, the flashing machinery of lens has had new rollers fitted to it and the apparatus has been repaired and put in good running order – the tower has been cement washed anew as well as the hallways, too. (Monthly Report for June 1876, submitted July 10, 1876, p. 436.)

190. Fire Island, south side of Long Island, New York. A 1st/order flashing white light; Funck lamp. Supplies furnished. - Rope, blocks, boat-anchor, boat, sails, repairing dock, coal &c, costing $416.22.
Repairs made - tower painted.
Required. - The roof of the keeper's dwelling requires repairs, and some plastering.
In the matter of keeping the Station, since the date of last report, has much improved.
(Annual Report for the year ending June 30, 1876, pp. 45-46.)

190. Fire Island Lt. Sta. The flagging of the top of the pier upon which the house stands has been repaired - and pointing attended to. The slating of the roof and plastering of some rooms has also been repaired.
(Monthly Report for July 1876, submitted August 1876, p. 450.)

190. Fire Island. The flagging of the top of pier which has been in very bad condition has been repaired and some other masonry work attended to.
(Monthly Report for September 1876, submitted October 13, 1876, p. 462.)

1877 189. Fire Island Lt. Ho. The roof of dwelling, brick and flagging of pier, pointing around windows - walls of dwelling, &c, have undergone repairs.
(Monthly Report for April 1877, submitted May 9, 1877, pp. 36-37.)

189. Fire Island - The planking for a walk from the light house to the beach has been delivered and will be laid in a few days.
(Monthly Report for May 1877, submitted June 11, 1877, pp. 54-55.)

189. Fire Island. The plank walk from the beach to the light house 675 feet long has been properly laid. The tower has been thoroughly cement washed - chimneys pointed &c. -
(Monthly Report for June 1877, submitted July 9, 1877, p. 70.)

189. Fire Island, south side of Long Island, New York. A 1st/order flashing white light. Funck lamp. Supplies furnished - curtains, paint, lime &c. $97.09.
Repairs made.
Required. One pump needs repairs, and slight repairs on roof. The Station is well kept.
(Annual Report for the year ending June 30, 1877, p. 191.)

189. Fire Island, N.Y. The lens apparatus at this station was seriously damaged during the month - for the repairs of which instant measures were taken.
(Monthly Report for August 1877, submitted September 12, 1877, p. 155.)

189. Fire Island Lt. Sta. N.Y. Made and fitted new rail posts for gallery around watchroom on outside of tower and repaired the railing - Repaired and refitted "Pickering" pump &c.
(Monthly Report for September 1877, submitted October 8, 1877, p. 176)

189. Fire Island. - The bell springs have been repaired and lamp reservoirs and dampers; and rubber coated cords fitted to the lantern curtain rollers.
(Monthly Report for December 1877, submitted January 9, 1878, p. 206.)

1878 188. Fire Island - The tower has been pointed and cement washed - and the pier flagging pointed and repaired. (Monthly Report for May 1878, submitted June 8, 1878, p. 241.)

188. Fire Island, south side of Long Island, New York. A 1st/order flashing white light; Funck lamp. Supplies furnished. - Telescope, boat, stove-pipe, lime, paint, oars, coal &c..... $543.80.
Repairs made. -
Required. -
(Annual Report for the year ending June 30, 1878, pp. 343-344.)

188. Fire Island. The Keeper has been furnished with boards &c for covering for his boat.
(Monthly Report for November 1878, submitted December 14, 1878, p. 366.)

1879 188. Fire Island, south side of Long Island, New York. A 1st/order flashing white light; Funck lamp. Supplies furnished. Rope, blocks, thermometer, fuel &c.....$38.24.
Repairs made.
Required - The tower needs to be repainted.
The Station, as to keeping, is in excellent order.
(Annual Report for the year ending June 30, 1879, pp. 45-46.)

Sept. 21 1871

Mr. H. O. French
Keeper Fire Isd. Light
Clock & Bros.
Islip, LI N.Y.

Sir

Your letter of the 20th/ is received. Agreeable to your suggestion a man will be sent to your station as soon as possible to make the repairs needed to the Dwelling & tower -

Very respectfully
J. C. Woodruff
Lt. H. Engineer 3rd/Dist.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Arhives RG 26
Miscellaneous Letters from Engineer, March 30, 1871 to
October 26, 1871, p. 410

October 16 1871

Mr. Isaac Sweezey
Keeper of Gt West Bay Light
Good Ground, Suffolk Co NY

Sir

You will please forward without delay to H. C. French the Keeper of Fire Island Light House - at Bay Shore Station L.I. the cradle and barrel of tools left by the cement washer at your station - The expense of sending the tools & cradle you will please include in your bill for board for Mr. ____?____ - which should be sent here for payment.

Very respectfully
J. C. Woodruff
Engr 3d Dist.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Miscellaneous Letters from Engineer, March 30, 1871 to
October 26, 1871, p. 468

N.Y.

DESCRIPTION AND HISTORY

APPENDIX C77.

DATE.			NAME OF LIGHT-STATION.	LOCATION DESCRIBED.	Latitude north.			Longitude west.			Number of Lights for distinction.	Description of Fog-signal, and how distinguished.
YEAR.	MONTH.	DAY.			°	′	″	°	′	″		
1825	March	3	Fire	$10,000 for Ltt. near Fire Island inlet								
1838			Island.	Fire Island inlet, L. I. Suffolk Co. N.Y.	40	38	35	73	15	40	1	
1850	Sept.	27		Sum not named in the rolls, for 4 spar Buoys to be placed by Congress decision.								
1851.	March	3		$300 for 4 spar Buoys in the Inlet- voted by Congress.								
1852				E. side of Fire Island Inlet S. side of Long Island	40.	37	46	73	13	38	1	
1857				Rebuilding begun, relighted 1. November 1858	40	37	53	73	12.	57	1	
1874				On east side of Fire island inlet, south side of Long Island	40	37	54	73	12	48	1	

National Archives Record Group 26
Abstract history of the Fire Island Light Station,
1825-1874

OF LIGHT-STATIONS.

ixed or revolving, &c.	ATOPTRIC APPARATUS.			Catadioptric apparatus.	Height of tower from base to focal plane.	Height of light above sea level.	Distance visible in nautical miles.	Color of tower or vessel.	When established.	When rebuilt.	When refitted.	COMPASS RANGE OF VISIBILITY.	REMARKS.
	Interval of flash.	Number of lamps.	Size of reflectors.										
	m. s.		Inch.	Order.									
													File No 2.8 $50.
volving	1,30.	18	15	....	74	89	27.	....	1825	...	...	....	
													New glazed.
F.	1.30	14	21	...	74.	89	22:	White	1826	..	1842		37 mil. from highlands of Navesink & 66 m. from Montauk Pt.
ving	1.00	...	.	1	74	89	15	White	1826	...	1858		
F/g Fl	1.00	..	...	1	150	166	20	Yellow	1826	..	1858	E,NE by Sd to W. by S.	Brick tower, with keeper's dwelling of the grey granite, attached, standing upon white washed stone piers. – 30 mil. from Sandy Hook Lt vessel, 35 mil. from Great West bay & 67½ mil. from

Fire Island Lighthouse
Dec. 31st, 1875

Captain A.C. Rhind, U.S.N.
Inspector 3rd Dist.

Dear Sir,

I have to report in relation to the new wick, that from Nov. 10th, when they were received to, Nov. 30th, they burned 51 Gals. & 2 Quarts last year there was burned 49 Gals. & 2 Quarts the month of Dec. last year there was 80 Gals. Dec. 75 there was burned, 86 Gals. The new wick do not carbonize as much, as the old; but get mushrooned a great deal more. I do not think that the flame is as brilliant as when the old wick was used.

Yours Respectfully

Seth R. Hubbard

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Enclosure to Letter Bound in Letter Book No. 379, page 258

Office of Light-House Inspector
Third District
Tompkinsville, N.Y.
Jany. 5th, 1876

Sir:

Herewith, please find enclosed copies of reports from the keepers of Fire Island and the Highland Light Stations, respectively, on the subject of English wick.

The former commends it in a qualified form, while the latter praises it highly.

Very respectfully

Your obedient servant,

A. C. Rhind
Captain USN
L.H. Inspector

Professor
Joseph Henry, LL.D.
Chairman, L Ho. Board

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 379, page 258

Western Union Telegraph Company
New York. July 17, 1877

Major Peter C. Hains,
Light House Board,
Washington, D.C.

Sir:

Referring to the interview which you did me the honor to grant on the 13th instant, and pursuant to the suggestions which you were kind enough to make on that occasion, that I should put the application then submitted in writing, I now beg leave to say.

In order to make the telegraphic connection which this company has recently established with Fire Island as valuable as possible to the shipping interests of this City we desire permission to run a wire from our Fire Island Station to the Balcony of the Light House there, and to connect the same with a small telegraphic apparatus on the balcony, to the end that when even the signals of a vessel are made out from the Balcony that said vessel may be reported directly from the point of observation to New York City. The station is located about one-eighth of a mile from the Light House, and the saving of time in transmitting the report directly from the Balcony will be at least fifteen minutes.

The transmitting apparatus can be so arranged as to occupy a space of but a few inches; and if it shall be found that the space available is too small to admit of placing the apparatus on the Balcony it will be possible for us to accomplish our purpose (although with less promptness and convenience) by the use of a pocket relay which can be attached and detached as occasion requires.

I beg to add, in this connection, that the employes (sic) of the Company who will have charge of this work at Fire Island will be experienced, careful, and trusty men whose conduct will conform to all the regulations of the service.

It is understood that if the above request is granted, the permission will be revokable at the pleasure of the Light House Board.

I have the honor to be,

Very respectfully
your obediant servant
President

Correspondence Received by Light-House Board, 1853-1900
National Archives RG 26
Bound in Letter Book No. 447, page 389

APPENDIX C81.

Aug. 27th 77

Sir,

I have the honor to report that the lens apparatus at Fire Island Light Station was severely injured by accident on the 23rd __________ - the only explanation given by the Keeper being that, while showing the lens to some visitors he placed his hand gently on the center of one of the panels when it gave way, breaking the flashing prism - or bull's eye and ______________ concentric prisms surrounding it in the panel - ____________ ____________ was despatched to the station as soon as notice of the accident reached me - He has made a careful examination of the extent of injury done and remarks as follows:

"The lens was made by ____________ (no date) the circumference is formed by 8 panels, one of which is about three fourths destroyed the outer prism - or bull's eye and the four concentric rings fell into the lens, striking on the iron deck etc. There is also a prism in the lower panel in the next section badly broken, caused I think, by one of the pieces of glass falling on it.

There was also another panel in a dangerous condition, the glass nearly ready to fall out. To prevent further accident I have glued several strips of cloth on different parts of the lens - where I thought it very necessary. (Because each piece will impair the efficiency of the lens). I have taken exact measurements of panel and prisms, and brought away pieces of each (of the center panel) destroyed -

I would suggest that a notice to mariners to issued by the Board if deemed necessary of the fact that the Eighth flash will be invisible in consequence of the broken panel; that is - there will be seven consecutive flashes at intervals of one-minute - then an interval of two minutes before the next flash will be visible. I would state in this connection that there are spare panels in store at this depot which will be prepared at once and sent to the station to have the damage repaired at the earliest possible moment.

Very respectfully
Your obt. servant

J. C. Woodruff
Engineer 3rd L.H. Dist.

Professor Joseph Henry, LLD
Chairman L.H. Board
Washington D.C.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 428, page 65

August 31st 7

Prof. Joseph Henry, LL.D.
Chairman L.H. Board
Washington, D.C.

Sir:

The following telegram was sent to the Board this morning: viz:

"Broken panel at Fire Island lens repaired and refitted with new panel on twenty ninth August: On that night the flashes were complete."

This information was not received at the depot until a late hour last evening; otherwise it would have been sent to the Board at an earlier moment.

Very Respectfully

J. C. Woodruff
Eng. 3 L.H. District

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 428, page 75

Fire Island Lighthouse
December 28th, 1877

A.C. Rhind, U.S.N.
Inspr. 3rd Dist.

Sir:

In reply to your letter in refference (sic) to the telegraph, I have to state that, the wire leads from the south east, and south west, upper windows, they are led through the caseings of the windows, and meet in the watch room, and are attached to a small sounder.

When the men of the telegraph Co. come to put it up, I told them, that I understood that, it was to lead to the lower north window thence up the tower to the balcony, I told them, that I did not think that it was intended to go inside the tower, they said they could not do it in that way as it ________ a ground. I went to the main land after the mail, when I returned I found they had placed it inside the tower, in the form that I have stated to you.

I don't know as it is of an inconvenience to as it is so small, it is about one foot long 6 inches wide, and placed on the shelf in the watch room.

Very respectfully

(signed)
Seth R. Hubbard
Keeper

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 426 , page 411

Office of Light House Inspector
Third District
Tompkinsville, N.Y.
Jany. 2nd, 1878

Sir:

Referring to the Board's letter of July 18th, 1877, granting permission to Wm. Orton Esq., President, West Un. Tel. Co. to run a telegraph wire from the Fire Island Station of the company to the Fire Island Light-house, with the understanding that the wire is to be carried up to the gallery on the outside of the tower, and that the apparatus be placed in the balcony of the tower, and not in the watch-room, I enclose a letter from the Keeper of the Light reporting that the apparatus has been placed in the watch-room; but he adds, that it is no inconvenience to the Keepers.

Very respectfully

Your obedient servant
A.C. Rhind
Commo., U.S.N.
L.H. Insp. 3 Dist.

Professor
Joseph Henry, LL.D.
Chairman
L.H. Board

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book 426, page 411

ANNUAL AND MONTHLY REPORTS
TO THE LIGHT-HOUSE BOARD
FROM THE ENGINEER AND INSPECTOR
THIRD DISTRICT

1880's

1880 192. Fire Island, south side of Long Island, New York. A 1st/order lens; Funck lamp.
Supplies furnished – Rope, oars, fuel &c .... $69.38.
Repairs made – Sundry small repairs have been made.
Required - The dwelling-house leaks and should have attention in that respect.
The Station otherwise, and as to keeping is in good condition.
(Annual Report for the year ending June 30, 1880, pp. 201-202.)

1881 191. Fire Island, south side of Long Island, New York. A 1st/order lens; Funck lamp. Cash expenditures. - Salaries, stove, rope, blocks, and freight .... $841.79. The tower needs rewashing, and it leaks in the roof. The dwelling-house needs repairs, one of the walls of the assistants room having been thrown down during a recent storm, and the flagging having settled in places. The pumps are entirely worn out. The steps leading to the deck need renewal.
In all other respects, the Station is in good condition, and is well kept.
The dwelling-house erected during the year, on the light-house property, without permission, by the keeper of the Life Saving Station, was removed under instructions from the Superintendent.
The other liberties taken by the crew of the Life Saving Station have all been corrected by the proper authorities, and the Light-Keeper will be required to encourage friendly rations (sic) with his neighbors.
(Annual Report for the year ending June 30, 1881, pp. 411-412.)

1882 194. Fire Island, east side of Fire Island Inlet, New York. A 1st/ order lens Funck lamp.
Cash expenditures.
Repairs made. - There were furnished during the year two new pumps, materials for new flooring the entries, and a new boat-sail. -
Required. - The circular windows of the Station need new sashes. -
The Station is in good condition and the light is well kept.
(Annual Report for the year ending June 30, 1882, pp. 43-44.)

194. Fire Island N.Y. A new set of Lamp burners have been furnished his Station.
(Monthly Report for November 1882, submitted December 12, 1882, p. 84.)

1883 194. Fire Island N.Y. New burners for this Station have been supplied.
(Monthly Report for January 1883, submitted February 8, 1883, p. 93.)

194. Fire Island N.Y. The illuminating apparatus at this Station has received a lampists attention during the month.
(Monthly Report for February 1883, submitted March 6, 1883, p. 99.)

193. Fire Island N.Y. The necessary painting of this Station has been provided for during this month. (Monthly Report for April 1883, submitted May 8, 1883, p. 113.)

193. Fire Island N.Y. Some necessary lampist work has been attended to.
(Annual Report for the year ending June 30, 1883, p. 155.)

193. Fire Island N.Y. Some necessary work upon the lamps has been done during the month. (Monthly Report for July 1883, submitted August 8, 1883, p. 202.)

193. Fire Island N.Y. The lamps and lens apparatus have been overhauled and repaired.
(Monthly Report for August 1883, submitted September 10, 1883, p. 207.)

193. Fire Island N.Y. The Station has been visited by a lampist to attend to some needs of the illuminating apparatus.
(Monthly Report for December 1883, submitted January 9, 1884, pp. 228-229.)

1884 196. Fire Island N.Y. The work of laying plank walk at this Station has been finished.
(Monthly Report for March 1884, submitted April 8, 1884, p. 252.)

196. Fire Island N.Y The plank walk at this Station has been renewed and extended.
(Monthly Report for April 1884, submitted May 9, 1884, p. 259.)

196. Fire Island on east side of Fire Island, south side of Long Island, New York. A 1st/order lens; Funck Lamp, June –30th.
A 1st/order mineral oil lamp was put in place, and lighted for first time, on the 8th instant.
Supplies furnished. Rope, stove and fixtures, boat lime and uniforms... $267.02.
Salaries.... $1,535.32.
Some repairs were made and others were required.
The Station is in good order.
(Annual Report for the year ending June 30, 1884, pp. 258-259.)

196. Fire Island. On east side of Fire Island Inlet, south side of Long Island N.Y. The plank walk from the Station to the boat landing has been rebuilt during the year and some general repairs of locks &c of doors attended to. First order mineral oil lamps to replace those burning Lard oil - have been made and sent to the Station.
The Station is in good order.
(Annual Report for the year ending June 30, 1884, p. 309.)

196. Fire Island N.Y. Some necessary work for the strengthening and better securing the lantern at this Station is being attended to.
(Monthly Report for July 1884, submitted August 7, 1884, p. 372.)

1885 196. Fire Island. On east side of Fire Island inlet, south side of Long Island, New York.
1st/order flashing white light; mineral oil lamp. -
Supplies furnished. Fuel, fire-brick, Stove-pipe, boat sails &c $56.23. Salary.... $1499.24.
The dwelling needs painting; repairs to window casings; plastering inside and pointing outside, and leaks to be stopped on the southeast side.

The tower is slightly cracked in places, and the bricks on the outside are considerably chipped.
The flagging and the brickwork on the pier have sunk in places. The pumps of the cistern are worn out.
As to keeping, the Station is in good order.
(Annual Report for the year ending June 30, 1885, pp. 51-52.)

196. Fire Island. On east side of Fire Island inlet, south side of Long Island, N.Y. At this station mineral oil lamps have been set up during the year. Repairs have been made to doors, windows, locks &c
(Annual Report for the year ending June 30, 1885, p. 33.)

196. Fire Island N.Y. A new pump has been furnished this Station.
(Monthly Report for November 1885, submitted December 8, 1885, p. 115.)

1886 197. Fire Island N.Y. Some repairs of the Keepers boat have been made.
(Monthly Report for April 1886, submitted May 8, 1886, p. 146.)

197. Fire Island. On east side of Fire Island Inlet, s. side of Long Island, N.Y. A new pump has been furnished this Station.
(Annual Report for the year ending June 30, 1886, p. 185.)

197. Fire Island on the east side of Fire Island inlet, south side of Fire Island, New York.
A 1st/order flashing white light. Funck lamp. -
Supplies furnished - Lime; rope, glass and glycerine, - $172.69.
Salaries .... $1496.41.
The roof, window frames, gutters and plastering of the dwelling need repairs. -
The Station generally is in good order.
(Annual Report for the year ending June 30, 1886, pp. 231-232.)

197. Fire Island N.Y. The light house lantern at this Station has been thoroughly overhauled and refitted with new screws. The lamps and burners have been overhauled and repaired. The dwelling will undergo some necessary repairs during the coming month.
(Monthly Report for August 1886, submitted September 7, 1886, p. 250.)

197. Fire Island N.Y. At this Station some general overhauling and much needed repairs have been commenced and well advanced during the month.
(Monthly Report for September 1886, submitted October 5, 1886, p. 255.)

197. Fire Island N.Y. The very thorough repairs of this Station begun in September have been finished during the month.
(Monthly Report for October 1886, submitted November 9, 1886, p. 260.)

1887 203. Fire Island N.Y. The plate glass for the lantern repairs at this Station has been procured and will be forwarded at an early day.
(Monthly Report for May 1887, submitted June 10, 1887, p. 317.)

203. Fire Island. On E. side of Fire Island inlet, s. side of Long Island, N.Y. Some repairs and other improvements have been made at this Station during the year. The slates of the dwelling roof which gave much trouble were removed and shingles, substituted. The plastering of several rooms was repaired - the walls were pointed. The flagging of the pier were relaid and the sides of the pier pointed. The lantern which leaked badly was reglazed and new screws substituted for those worn out by rust. The illuminating apparatus will receive attention and refitting in the next month.
(Annual Report for the year ending June 30, 1887, pp. 363-364.)

203. Fire Island, on the east side of Fire Island inlet, South side of Long Island, New York.
A first order flashing white light; Funck mineral oil lamp.
Supplies furnished. - Lime - marker rope, medicines, stoves and fixtures & paint $147.13 (or $177.13?) Salaries .... $1558-39.
Four rooms in the dwelling were painted and whitewashing was done by the keepers.
The window frames on the east side of the dwelling need repairs as they are in poor condition. Two storm doors are needed and also pumps for the cistern on the east side of the dwelling. Some of the lower beams on the east side of the house appear to be decayed.
The Station is in good order.
(Annual Report for the year ending June 30, 1887, pp. 399-400.)

1888 206. Fire Island N.Y. A supply of glass, valve leather, pump, nails, bolts, screws, window frames, storm doors, hinges, locks, knobs, lumber, cement, & lens protector has been delivered at this Station for general repairs.
(Monthly Report for April 1888, submitted May 2, 1888, p. 106.)

206. Fire Island. On east side of Fire Island Inlet, S side of Long Island, N.Y. Glazing of lantern repaired and roof put in good order. Storm door to the entrance of the watch room has been repaired and refitted and material for repairs to dwelling and pier delivered at the Station. (Annual Report for the year ending June 30, 1888, p. 172.)

206. Fire Island, on east side of Fire Island, south side of Long Island, New York. A first order flashing white light; mineral oil Funck float lamp. -
Supplies furnished. Blocks, stove fixtures, lime - marker, Spirit level.... $74.89.
Salaries .... $1634.90.
Repairs made.
Required. The doors and windows need repairs; the tower leaks.
The Station is in fair condition.
(Annual Report for the year ending June 30, 1888, pp. 67-68.)

206. Fire Island N.Y. The floor timber of the oil room have been repaired and carrying timbers properly shored placed next to partition; made outside door frame and set trimmings, put in new sill and fitted double door. Locks, knobs, &c. overhauled and rehung two storm doors and made one new one. The brick paving of pier relaid where necessary. Cemented around base of tower and joints of the foundation of the dwelling.
(Monthly Report for July 1888, submitted August 15, 1888, pp. 197-198.)

206. Fire Island, N.Y. Set three boundary posts; made and fitted 2. window frames, one new sill outside; repaired 2. window frames; made and fitted 96 feet of ¼" round moulding, laid in white lead around the windows of the tower and dwelling; got out and fitted 10 feet of moulding taking off old and renailing same. Repaired and rehung outside cellar door; fitted 200 feet of weather strips. Built one new set of steps and railing and repaired others. Repaired fence; flashed each side of windows. Pointed tower deck and around windows of the tower and dwelling.
(Monthly Report for August 1888, submitted September 11, 1888, p. 206.)

206. Fire Island, N.Y. Material has been collected and prepared for shipment, for boat house and boatways at this Station.
(Monthly Report for October 1888, submitted November 13, 1888, p. 240.)

206. Fire Island, N.Y. Material has been delivered and 90 feet of boatways and a boat house 14' x 30' with shingle roof and batten sides built.
(Monthly Report for November 1888, submitted December 10, 1888, pp. 251-252.)

211. Fire Island, N.Y. A boat cradle sixteen feet long and five wide has been built and is ready to ship to the Station.
(Monthly Report for December 1888, submitted January 10, 1889, p. 269.)

1889 206. Fire Island, N.Y. Lumber and other material for extending the boatways have been delivered - also a winch to be used in connection with the ways.
(Monthly Report for March 1889, submitted April 10, 1889, p. 306.)

214. Fire Island, N.Y. A coal bin has been built, one boat winch and material for extending boatways delivered and work completed.
(Monthly Report for April 1889, submitted May 11, 1889, pp. 323-324.)

214. Fire Island. Repairs have been made to the keeper's dwelling and tower. A boatway 120 feet long, boat house fitted with winch, and coal bin have been built.
(Annual Report for the year ending June 30, 1889, p. 396.)

214. Fire Island, on east side of Fire Island Inlet, on the South side of Long Island, New York. A 1st/order flashing white light, Funck float lamp.
Supplies furnished. Medicines, range, boat, rope, blocks, fuel &c .... $707.45.
Salaries .... $1608.52.
Repairs made. The dwelling was ___?___ - house and ways were repaired. New coal-house was built and the lantern received new lining.
Required - The outside of the tower needs to be cement-washed. The station - the boat-ways lengthened 3? feet.
As to keeping the Station is in fair condition.
(Annual Report for the year ending June 30, 1889, pp. 305-306.)

214. Fire Island, N.Y. Oil house has been completed and repairs made to boatways.
(Monthly Report for November 1889, submitted December 12, 1889, p. 15.)

2/5 [illegible]

No. 36.

3rd DISTRICT.

DESCRIPTION

OF

LIGHT-HOUSE TOWER, BUILDINGS, AND PREMISES

AT

Fire Island

Long Island, N.Y.

March, 1850.

NOTE.

This form is designed mainly to guide in preparing accurate descriptions of new light-stations, but will be used also in describing those that have been long established, when required. Those blanks which cannot be filled by the officer preparing the description should be left blank, to be filled at the Light-house Board from data on file. Screw-pile structures and lights on keeper's dwellings should be fully described without reference to this form.

TREASURY DEPARTMENT,
OFFICE L. H. BOARD, *Sept.*, 1871.

NAME AND POSITION OF THE LIGHT-HOUSE AND LIGHT-STATION.

Fire Island N.Y.
On the east side of Fire Island Inlet, South side of Long Island New York.

By whom described. Genl. J. C. Duane Eng. 3rd L. H. District

Date of description. March , 1880

Distinguishing character of light or lights. First Order — Flashing White.

Latitude of tower. 40° 37' 55"

Longitude of tower. 73° 13' 09"

Authority. L. H. List Corrected to Jany 1st

PREMISES—A DETAILED DESCRIPTION OF, EMBRACING—

Area of the entire site. About 1/3 Acre

Character of surface soil. Sand.

Distance of tower from nearest high-water mark. One hundred and fifty feet.

Enclosures to premises. A railing around the stone pier upon which the Building and Tower stand (100 x 150 feet)

Wharf or landing on premises.
A wooden wharf much dilapidated.

Road to landing or wharf, character of, and distance from tower. None

Means by which the light-station may be reached. Five miles from Babylon on the South Shore R.R. During the summer, a small steamboat runs between the Island and Babylon. Otherwise reached by sail boat.

To Penataquot village and the rail road the distance is four miles, and to the Light House across the Bay 7 or 8 miles.

Tower or other means used for supporting the lantern and apparatus. Tower

Number of separate lights. One

When first built or established. 1826

When last thoroughly rebuilt, repaired, or renovated.

Refitted in 1858 Repaired in 1872

Condition at this date Good

Shape of tower in plan. Circular

Height of tower from base to ~~cowl~~ focal plane of lantern. 152 feet.

Height of focal plane of lantern above the mean sea or lake level. 168 feet.

Back-ground of the light-house, upon which it is projected, as seen from the sea or lake.

Woods

Color of tower. Yellow

Color of tower, how produced. Cement wash

Tower—connected with keepers' dwelling, and how, or detached. Connected by cove

way from the Keeper's Dwelling.

Object: sea-coast, lake-coast, bay, harbor, channel, or range; for general or local navigating purposes.

Sea coast, and general purposes;

Materials of which the tower is built. Brick — Iron stair case, rai

Parapet platform of Granite.

General description, embracing—

Thickness of walls at base. Ten feet nine inches (10' 9")

Thickness of walls at parapet. Two " four " (2' 4")

Diameter of tower at base.
Diameter of tower at parapet. } Interior 10 ft. 6 in —

Kind of stairway and steps. Cast Iron

Number of landings of stairway.
Nine including lantern deck.

Size of glass for glazing tower-windows.

Number of windows in tower, and size of sash. Seven, double French 2'4" x 5' wide

Number of doors. One

Kind of foundation and depth below the surface.
Rubble and Concrete foundation extending 15 feet below the Surface of Stone Pier.

Character of soil at and surrounding the light-house. Sandy

Soil susceptible of being protected by grass, shrubbery, or trees. No.

Miscellaneous remarks upon tower and site.

LANTERN AND LANTERN FIXTURES.

Order or class of lantern. First Order

Diameter. Eleven ft. four inches (11'4") interior.

Number of sides in plan. Sixteen (16.)

Height glazed. Nine feet nine inches (9'9")

Number of plates in height. Three

Number of plates in each side. Three

Thickness of plates. 7/8 inch

Size of different plates. Lower $27\frac{5}{8} \times 30\frac{3}{4}$ middle $27\frac{5}{8} \times 39"$ upper $27\frac{5}{8} \times 26\frac{3}{4}$

Number of storm-panes of glass. None

Unglazed side of lantern in plates or degrees of arc.

Materials of which the lantern is constructed. Iron

Dome. Copper

Cowl. Copper

Lightning-conductor spindle. Copper, platinum point.

Lightning-conductor, of what material; how attached to spindle; how led, and how far below the surface of dry earth, or otherwise, as the case may be.

Copper rod, outside of the tower.

Balustrade and outside gallery. Copper pipe railing - Iron gallery.

Lantern-doors, and how fitted. Wood lined with copper

Floor of lantern—of what materials. Copper inside, Cast Iron outsi

Watch-room door leading into the lantern, and how fitted.

Trap door of wood lined with copper.

VENTILATORS.

In parapet, wall, or lower part of lantern.

Five (5) of cast iron.

Lantern-ladders for cleaning plate-glass outside. One of wrought iron

Curtain-hooks inside of lantern—how fitted. None

WATCH-ROOM.

How fitted.

Wooden floor copper covered.
Heater, and strainer. L. H. Clock

Bell-wires, or speaking-tubes, for calling relief keepers—kind. —

ILLUMINATING APPARATUS, &c.

Order and characteristic distinction of apparatus.

First Order Fresnel
Flashing White.

If movable; time of revolution, and intervals between and duration of flashes.

One minute interval.

If fixed, or fixed varied by flashes; arc of fixed part in degrees, and between what points of the compass seen.

—Nil

Lantern-ladders for cleaning plate-glass outside. One of wrought iron

Curtain-hooks inside of lantern—how fitted. None

WATCH-ROOM.

How fitted.

Wooden floor copper covered.
Heater, and strainer. L. H. Clock

Bell-wires, or speaking-tubes, for calling relief keepers—kind. —

ILLUMINATING APPARATUS, &c.

Order and characteristic distinction of apparatus.

First Order Fresnel
Flashing White.

If movable; time of revolution, and intervals between and duration of flashes.

One minute interval.

If fixed, or fixed varied by flashes; arc of fixed part in degrees, and between what points of the compass se

Flashing

Compass Visibility—
E. N. E. by Southward to W. by S.

Number of panels in the lens apparatus. Eight.

Number of prisms of each panel *above* the dioptric drum or central belt of the lens.

Number of prisms of each panel *below* the dioptric drum or central belt of the lens.

Pedestal.

Service table.

Tube leading through the centre of the upper metal ring of the lens into the cowl, to carry off the gases of combustion and to assist in producing a proper draught in the lantern—of what material, diameter, and how fitted and connected with damper-tube when in place.

If revolving, revolving machinery.

Revolving cord or chain—how led.

Length of drop-tube.

Length of time revolving machinery will run after being wound up.

How machinery is protected.

How regulated; describe.

How the flashes are produced: By the whole apparatus revolving; by the central belts only revolving; by panels of vertical elements revolving outside of fixed lens, and, if so, the number of such panels, or how?

IF COLORED LIGHT.

How is the color produced? Describe. White.

LAMPS AND BURNERS.

Description of lamp in use and number of wicks to burner.

Number of spare lamps at the station.

Number of spare lamp-burners at the station.

TOOLS, IMPLEMENTS, AND ACCESSORIES.

Lantern-curtains.

Lens-covers.

Damper-tube and key.

Spare damper and key.

Carillon, or alarm-bell, for overflow lamp.

Outfit

Time-marker for revolving light.

Gauge (250-gram measure) for regulating the overflow of oil through burner.

Spare lamp ready for use.

Rod lamp ready for use.

Curtain-hanger for putting up and taking down lantern-curtains.

Heater, (if required.)

Spare lamp-cover.

Lamp-stand.

Mechanical lamp-cords or chains.

Revolving machinery cords or chains.

Revolving machinery weights.

Clutch for resting weight on.

Spare fly or governor.

Gauge for oil-cistern of lamp.

Feather brushes.

Linen towels.

Sponges.

Chamois-skins.

Scissors.

Chimney-lifters.

Coupling-plyers.

Service basket and implements.

Cleaning materials.

Keeper's aprons, &c., (see list.)

CLOSETS IN TOWER.

How fitted and used. Fair

OIL-ROOM OR CELLAR.

Describe where placed and how fitted.

In 1st Story of Dwelling house
fitted with eight oil butts, 1 strainer
and oil cans, tools, burner glasses &c

Regulation 100-gallon oil-butts—number. 6

Regulation 50-gallon oil-butts—number. 1

100 gallon oil-cans—number. 1 for waste.

Oil-butts—how placed. On wooden benches

CLOSETS AND STOREROOMS.

Where placed, how fitted and used.

In the Dwelling and used for Tools &c
and domestic purposes generally.

Damp or dry, suited or unsuited to the purposes for which they were designed. Dry & Suited

FOG-SIGNAL.

Describe in detail, embracing—

Kind and character of instrument.

Characteristic distinction of.

Location, with reference to the light-house, to a particular danger or channel, or to the special object for establishing it.

Distance from the light-house.

Water supply for it.

How it is reached from the light-house.

Kind and size of fog-signal building or buildings.

DWELLINGS FOR KEEPERS.

Location, with reference to the light-house tower.

Connected with Tower by covered way.

Materials of which built. New York cut granite – One and one half stories high with cellar underneath.

Number of rooms in each dwelling. Two Sitting Rms, 6 sleeping rooms 2 kitc 3 cellars (one used as store room + one for work shop) 8 closets.

Number of keepers and assistants to each dwelling.

One keeper and two assistants.

Out-houses. One small shed

Paths or walks on the premises. None.

Area of premises enclosed, and how. 15,000 Sq. feet (area of pier)

Area of garden. None.

Area in timber or shrubbery.

Area susceptible of profitable cultivation. None

Area cultivated or prepared for cultivation.

Character of adjacent surrounding country: Soil sandy, clay, marsh, swamp, wood, fast ground, or shifting sands. Sand entirely.

Distance to the nearest post office. To Babylon 9 miles

Distance to the nearest village or town. Penataquit 4 "

Facilities for reaching the light-station by public conveyance. R.R. & private conveya

Facilities for reaching the light-station by private conveyance from the nearest village, town, railroad-station, or steamboat-landing, and the distance.

Sail boat from R.R. station across the bay 7½

WATER FOR DRINKING AND DOMESTIC USES GENERALLY.

How procured. Two wells one with pump – the other dry

Quality. Good

Quantity ample or not for the station at all seasons of the year. Yes

Liable or not to be injured by the inroads of storm-tides and seas. No

If rain-water in tanks or cisterns, what precautions have been taken to insure its purity.

No tanks nor cisterns

Capacity of tanks or cisterns, and where placed.

Tanks or cisterns—of what materials made.

If from a well, describe and give depth. Well

Diameter.

Lined or not.

Water obtained by pump or bucket. pump

Distance from keeper's dwelling. At hand.

HEALTH OF THE LIGHT-STATION AND VICINITY.

General opinion in regard to the healthiness or unhealthiness of the light-station and vicinity.

Good.

Diseases—what are most prevalent at the station a he vicinity?

N

Do they prevail at particular seasons of th

Respectfully your

Are there any local causes, such as swamps, e light-house which are likely to be the cause of these diseases?

No

Would draining or other artificial means employed on the light-house premises be likely to improve the sanitar condition of the light-station? No.

LANDING, WHARF, BOAT-HOUSE, AND ROAD TO THE LIGHT-HOUSE.

Describe. No boat House
Wooden landing wharf out of repai
Landing easy.

14

MISCELLANEOUS REMARKS UPON THE GENERAL CHARACTER AND CONDITION OF THE PREMISES, TOWERS, BUILDINGS, AND ILLUMINATING APPARATUS AT THIS DATE.

APPENDIX C87.

December 8th 83

Sir:

For the information of the board I have the honor to submit the following statement relative to the greatly increased consumption of lard oil at the Fire Island light-station: -

On the first instant, the Keeper reported to me that, during the month of November, there had been consumed at his Station 126 gallons of oi. - As the maximum quantity of lard oil which the improved first order burner has consumed in the lamp shop, and under the most favorable circumstances, is one quart an hour, that quantity was fixed upon as the allowance which should not be exceeded at 1st order stations where the improved burner is in use. -

During the month of November the light should have been burning 422 h. 8 m. The allowance of oil for that time being gall. qts. pts. gills
105. 2. 0. 1.
The excess of consumption was 20-1/2 gallons, or more than 19 percent over the allowance.

I informed the Keeper that there was some mistake in his measurements or calculations, and directed him to burn all the oil he possibly could for one week, and report the results in detail. - His report corroborated his first statement. -

I arranged that Mr. Joseph Funck should go to Fire Island, and observe the working of the light. He spent the night of the 11th instant there, and, on his return, gave me the following data, which show that the Keeper was not in error, and that the circumstances connected with the increased consumption of oil are peculiar to Fire Island. -

Dec. 11. - Lamp lighted at 4.30 p.m.
Dec. 12. - Lamp extinguished at 7.13 a.m.
Was burning.......... 14 h. 43 m.

	Galls.	qts.	pts.	gills
Consumed.........................	5.	0.	0.	2.
Allowance, at 8 gills per hour...	3.	2.	0.	2.
Excess over allowance, ...	1.	1.	1.	0.
Or, in excess, at the rate per hour of.......................	0.	0.	0.	3.

Further investigation shows that pipes for the purpose of increasing the draft of air in the lantern, have recently been put in at Fire Island, and that on November 1st last, a burner was put in which had been changed so as to increase the size of the tube supplying oil to the wicks. - The increased consumption of oil can therefore be attributed to the improved draft, and to improvement in the burner by the increase in the size of the supply tube. -

Mr. Funck reports that during the night he was at Fire Island, a steady solid flame, (without points) of over five inches in height was maintained, and with no smoke. - The instructions state that the flame be 3-1/2 or 3-3/4 inches high.

Regarding the Fire Island light - as the most important one in this district if not on the whole Sea-Coast, I have instructed the keeper to maintain the highest flame he can, without regard to the quantity of oil consumed, until further instructions.-

Mr. Funck's opinion is that a solid flame of 5 inches in height yields a power of over 500 candles.-

Persons residing on Long Beach, 17-1/3 nautical miles to the westward of Fire Island, say that until during November last, they could see the Fire Island light only at intervals, and that when it was seen, they were certain that they were to have an easterly wind; but that during November the light was visible at all times in clear weather.

This is an evidence that there was an increase in the brilliancy of the light during that month.-

I would like to be instructed as to whether I shall direct the Keeper to lower the flame to the regulation height, or allow him to continue to show the best possible light.- This I ask, in order that I may be able to give my authority for allowing an expenditure of oil in excess of present allowances.-

Fire Island. Expende. of Oil.-

Very respectfully
your obedient servant,

Capt. U.S.N.
Inspr. 3rd. Dist.

Vice Admiral
Stephen C. Bowan, U.S.N.
Chairman, Light-House Board

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 587, page 918

U.S. General Light-House Depot
Office of Light-house Inspector
Third District
Tompkinsville, N.Y. July 11, 1884

Sir

I have the honor to report to the Board that the mineral oil lamp at Fire Island light-house was put in use, for the first time, on the night of the 8th instant.

Very respectfully
your obedient servant

Capt. __________
Inspr. 3rd Dist.

Vice Admiral
Stephen C. Rowan, _____
Chairman,
Light House Board

Correspondence of the Light-House Establishment, 1789-1850.
National Archives RG 26
Vol. 617, page 58
LHB Department

APPENDIX C89.

Cost of maintaining Fire Island Light Station
from Nov. 1st, 1884 to Oct. 31st, 1885.

1884-5		Supplies	Salaries
Nov. 12	Fire brick	2.15	
Dec. 31	Salary of Keeper		185.00
" " "	1st. Asst. Keeper		112.50
" " "	laborer, actg: 2 asst.		100.00
Jan. 13	Stove-pipe and elbows,	1.56	
April 7	Copper paint	1.70	
" 12	Salary of laborer, actg: 2 asst.		13.19
March 31	Salary of Keeper		185.00
" " "	1st. asst. keeper		112.50
" " "	2nd. " " Laborer		100.00
April 17	Mainsail & jibs for boat	35.00	
" 11	telegram		.32
June 30	Salary of Keeper		185.00
" "	1st asst. keeper		112.50
" "	2 " "		86.81
		$40.41	$1,192.82

November 3rd, 1885

Sir:

I have the honor to forward herewith-in compliance with the Board's letter of the 31st, ultimo lists giving, one, the cost of all supplies, including coal, issued to the electric light-station at Hallet's Point, - the other, the cost of maintaining the first order light at Fire Island, both for the year ending October 31st, 1885.

Very respectfully,
your obedient servant

A. N. Berham

The Chairman of the Captain,
Light-House Board Inspr. 3rd Dist.

Correspondence of the Light-House Establishment, 1789-1850.
National Archives, RG 26
Vol. 647, page 8

APPENDIX C90.

1886.

Fire Island - repairs of dwelling.

Shingles, brick, cement, lumber and hardware.
1 lot.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to Engineer, Vol. No. 44

Approval for supplies listed below:

April 1887
Page 107. Fire Island Light-Station, N.Y.
Material and labor for repair of lantern and tower peaks.

May 1887
Page 170. Fire Island Light Station.
3 plates of lantern glass.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light House Board to Engineer, Vol. No. 47
January 5, 1887 to May 18, 1887

21 Sept. '87

Sir:

The following memorandum was made by Inspector of the 3rd Light-House District, in the report of this inspection of Fire Island Light-Station, N.Y., dated 6 Sept. '87.

> "Window casings in 2nd assistant's kitchen are rotten. Slight carpentry repairs needed, locks &c. A Storm door to Eastern door would be a great improvement. A pump for Eastern well would be a convenience as the sand is apt to cut out pump boxes and the present pump is frequently out of order."

The Board requests you to make the needed repairs, in accordance with the suggestions of the Inspector.

Very respectfully
R. D. Evans
Commander, U.S.N.
Naval Secretary

D.P. Heap U.S.A.
Engineer 3rd L.H. District,
New York, N.Y.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to Engineer, Vol. No. 50
August 23, 1887 to November 27, 1887

July 25th, 1888

The Chairman of the L.H. Board
Washington, D.C.

Sir:

Referring to my letter of 29 June 88. I have the honor to request authority to commence the work mentioned below. As will be noticed it is all mason work and it is my intention to send a gang from station to station until it is completed.

Unless I can do so soon my gang will be broken up as they will be seeking work elsewhere and besides I can get better men at lower wages if I can assure them continuous employment - list of work, including Fire Island. Point House, also Lantern deck and parapet - plastering of dwelling and repair of deck of pier.

Respectfully yours,

D.P. Heap
Major of Engineers
Engineer 3rd L.H. Dist.

24 July 88 Advice of appt. of Ezra S. Mott Keeper Fire Island Lt.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
Vol. 28, Letters to the Light-House Board June 28, 1888 to Oct. 19, 1888

7 November 1888

"The Engineer Secretary read a letter from the Engineer of the 3d Lighthouse District, dated 24 Oct. '88, requesting authority to build a set of boat-ways, a boat house and cradle for the Fire Island light-station, N.Y. and stating that he had authorized the work whereupon, it was ordered that the action of the Engineer Secretary, as stated stand."

Approved.

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 12, page 529

ANNUAL AND MONTHLY REPORTS
TO THE LIGHT-HOUSE BOARD
FROM THE ENGINEER AND INSPECTOR
THIRD DISTRICT

1890's

1890 239. Fire Island, south side of Long Island, New York. A first order flashing white light, Funck float lamp.
Supplies furnished. Fire-brick, paint, oars, stove-brick, fuel &c .... $143.04.
Salary.... $1812.52.
Repairs made.
Required. The outside of the tower, in which the bricks are weatherworn, and the pumps need repairs.
The Station is in efficient order.
(Annual Report for the year ending June 30, 1890, p. 99.)

239. Fire Island, N.Y. An oil house has been built; boatways lengthened; lantern glass and 1st/order burner delivered at Station.
(Annual Report for the year ending June 30, 1890, p. 94.)

239. Fire Island, N.Y. The kitchen pumps have been fitted with new parts, overhauled and repaired.
(Monthly Report for October 1890, submitted November 10, 1890, p. 163.)

1891 239. Fire Island Lt. Sta. N.Y. This Sta. has been supplied with six new rim locks for doors of dwelling.
(Monthly Report for January 1891, submitted February 14, 1891.)

243. Fire Island, south side of Long Island, New York. A first order flashing white light. Funck float lamp.
Supplies furnished. Paint, lime, oils, rope, medicines &c .... $63.17. Salaries .... $1690.00.
Repairs made. The wells [?] of the Station were repaired.
Required. The outside of the tower needs paint or wash to protect it from deterioration. The pointing is falling out and the bricks are chipping off. The interior of the tower needs a hand railing to staircase, and there should be a new plank way to boat-house.
The Station is kept in good order.
(Annual Report for the year ending June 30, 1891, pp. 319-320.)

243. Fire Island, N.Y. The material for changing the tower to horizontal stripes white and black has been delivered and workmen are engaged putting it on.
(Monthly Report for August 1891, submitted September 10, 1891, p. 277.)

243. Fire Island, N.Y. Painted tower alternate bands of black and white.
(Monthly Report for September 1891, submitted October 1, 1891, p. 288.)

243. Fire Island Lt. Sta. N.Y. Repaired the plank walk.
(Monthly Report for September 1891, submitted October 1, 1891, p. 288.)

1892 266. Fire Island. N.Y. A new collar has been fitted on the lantern dome to hold the pipes.
(Monthly Report for July 1892, submitted August 5, 1892, p. 386.)

1893 266. Fire Island Lt. Sta. N.Y. - The work of repairing and lengthening the boatways is now at hand.
(Monthly Report for May 1893, submitted June 10, 1893, p. 443.)

274. Fire Island Lt. Sta. N.Y. Completed lengthening & repairs on boatways.
(Monthly Report for June 1893, submitted July 10, 1893, p. 451.)

Fire Island, N.Y. - A new collar has been put on the lantern dome to hold the pipe.
(Annual Report for the year ending June 30, 1893, p. 475.)

1894 276. Fire Island, N.Y. - The work for the proposed change of the characteristic of the light is well advanced. The material for the electric building has been mostly collected at this Depot. The plant contracted for and the 4th order Lantern to be used while the change is being made is nearly finished.
(Annual Report for the year ending June 30, 1894, p. 50.)

276. Fire Island Lt. Sta., N.Y. - All the material for the railroad; platform for 4th order lantern; cement for foundations and floors; frame of building, except sills and plates; corrugated iron for covering same, together with necessary rigging, has been landed and 750 feet of narrow gauge track from the shore to site of plant building, built.
(Monthly Report for August 1894, p. 79.)

276. Fire Island Lt. Sta. N.Y. - A platform on the level of the main lantern deck has been built, and a 4th order lantern set up with the exception of the roof. Foundation for the power house completed, frame set up and boarded to the eaves, the concrete floor in the portion to be occupied as a coal bin completed. 750 ft. of track built from near boat-house on the Bay side to power house. 1st/Ass't Keeper Quarters has been partly replastered & repaired.
(Monthly Report for September 1894, submitted October 9, 1894, p. 85.)

No. 276. Fire Island Lt. Sta., N.Y. The repairs on the walls and ceilings in the Keeper's dwelling have been completed; electric power house is almost finished, - walls filled with sawdust mortar; two boilers, one engine and one dynamo set in place and the pipe connection now being made. The temporary 4th order lantern is now ready to receive the lantern glass. The electric lamps to be used, - or proposed to be used, are now being tested at this Depot.
(Monthly Report for October 1894, submitted November 10, 1894, p. 89.)

No. 276. Fire Island Lt. Sta., N.Y. The engine and boilers have been connected and tested. A retaining wall has been built north of the power house. Keeper's coal shed moved near the railroad track. Railroad completed to the power house. Power house finished and painted. Cisterns of 10,500 gal. capacity built. Walls and ceilings of Keeper's dwelling patched. Deck of the tower grouted. Lantern glass and roof of the temporary 4th order lantern fitted.
(Monthly Report for November 1894, submitted December 14, 1894, p. 93.)

1895 No. 276. Fire Island Lt. Sta., N.Y. - Patterns have been completed and castings made for the necessary changes in the electric apparatus to adapt it to the present lantern at Fire Island. The work of fitting the castings is now at hand.
(Monthly Report for January 1895, submitted February 6, 1895, p. 100.)

No. 274. Fire Island Lt. Sta., N.Y. - The new deck & other castings necessary for the Electric plant & appa. are being prepared.
(Monthly Report for February 1895, submitted March 7, 1895, p. 102.)

No. 276. Fire Island Lt. Sta., N.Y. - The new parts of the pedestal & deck for the Electrical apparatus have been completed.
(Monthly Report for March 1895, submitted April 8, 1895, p. 106.)

284. Fire Island, N.Y. - The ceiling and walls of the dwelling have been repaired and patched. The watch room deck pointed and grouted. The following work preparatory to establishing the new electric light proposed for this Station, has been completed.
A powerhouse and coal shed was built.
Two boilers, one engine, one dynamo and one exciter were put in place A narrow gauge railroad built from the beach to the coal shed. All the iron work necessary to adapt the lantern to the new apparatus has been fitted and is now stored at the Depot ready for shipment. A 4th order lantern has been temporarily placed on a bracket on the south side of the tower to serve until the new light is established.
(Annual Report for the year ending June 30, 1895, p. 140.)

No. 284. - Fire Island Lt. Sta., N.Y. The work of repainting the tower and other repairs is now in hand.
(Monthly Report for August 1895, submitted September 6, 1895, p. 165.)

No. 284. - Fire Island Lt. Sta., N.Y. The tower has been pointed and the electric power-house painted; portable boatways built and ready to be delivered.
(Monthly Report for September 1895, submitted October 9, 1895, p. 170.)

No. 284. - Fire Island Lt. Sta., N.Y. Tools, rigging &c, left at the Station when work on the electric plant, &c. was suspended, have been brought to this depot.
(Monthly Report for October 1895, submitted November 9, 1895, p. 177.)

No. 284. - Fire Island Lt. Sta., N.Y. Three lengths of portable boatways have been delivered at the Station.
(Monthly Report for December 1895, submitted January 7, 1896, p. 189.)

1896 No. 284. - Fire Island Lt. Sta., N.Y. The pump braces and valves have been repaired; steps leading to the pier rebuilt and leaks in the east side of the dwelling stopped.
(Monthly Report for May 1896, submitted June 9, 1896, p. 221.)

No. 305. - Fire Island, N.Y. Tower pointed and electric plant house painted; pump, pump braces and steps leading to pier, or platform repaired and leak in E. side of dwelling stopped. Decision has yet to be made as to what shall be the disposition of the electric plant whether to be used at Station as may seem unnecessary in view of the establishment of a light-vessel 9 miles seaward, or to be transferred for use at some other station.
(Annual Report for the year ending June 30, 1896, p. 257.)

No. ___ - Fire Island Light-Vessel. To be established July 10, 1896.
(Annual Report for the year ending June 30, 1896, p. 257.)

No. 305. - Fire Island Lt. Station, N.Y. An inspection of this Station was made on Aug. 7 and Report of same with recommendations &c are forwarded to the Board on Aug. 17.
(Monthly Report for August 1896, submitted September 8, 1896, p. 342.)

No. 305. - Fire Island, N.Y. Furnished new governor, brass bushings for clockwork of lens, one drill and one tap. Clock repaired; lens leveled; 16 new bolts put in lantern braces, and lining and iron door of lantern repaired; two damper pipes overhauled.
(Monthly Report for September 1896, submitted October 13, 1896, p. 351.)

No. 305. - Fire Island, N.Y. - New bell pull for tower furnished.
(Monthly Report for October 1896, submitted November 11, 1896, p. 361.)

No. 305. - Fire Island, N.Y. - The entire steam and electric plant and one 4th order iron lantern removed and brought to this Depot on Dec. 31. Overhauled lamps and fitted packing rings on pistons.
(Monthly Report for December 1896, submitted January 11, 1897, p. 377.)

1897 No. 305. - Fire Island, N.Y. - Furnished 9 plates lantern glass.
(Monthly Report for January 1897, submitted February 1897, p. 383.)

No. 305. - Fire Island, N.Y. - Furnished with one barrel cement for pointing pier, and 50 shingles for roof of water closet.
(Monthly Report for April 1897, submitted May 8, 1897, p. 400.)

No. 305. - Fire Island, N.Y. - Pointed sides of pier; repaired roof of water closet.
(Monthly Report for May 1897, submitted June 9, 1897, p. 406.)

No. 305. - Fire Island, N.Y. - Leveled lens; repaired 2 lamp dampers.
(Monthly Report for June 1897, submitted July 8, 1897, p. 414.)

No. 305. - Fire Island, N.Y. - The steam and electric plant established at this Station was returned to this Depot on Dec. 31, 1896. Braced and secured lantern and repaired door. Furnished 9 plates glass for lanterns, new governor for lens; leveled and repaired lens apparatus and lamps; pointed sides of pier, repaired roof of water closet and furnished new bell pull for tower call bell.
(Annual Report for the year ending June 30, 1897, p. 438.)

No. 305. - Fire Island, N.Y. - Overhauled revolving machinery of lens and made necessary measurements for supplying new parts.
(Monthly Report for August 1897, submitted September 9, 1897, p. 489.)

1898 No. 317. - Fire Island, N.Y. - New chariot for lens furnished and fitted.
(Monthly Report for January 1898, submitted February 9, 1898, p. 22.)

No. 317. - Fire Island, N.Y. - Telephone connection established with this office May 5th, Station supplied with the following signaling outfit &c:
1 binocular marine glass,
1 set (19) International Code Signal Flags,
1 copy of the International Code of Signals,
1 copy of the Instructions for Signaling,
1 set of signal halyards and blocks,
(Monthly Report for May 1898, submitted June 9, 1898, p. 47.)

No. 317. - Fire Island, N.Y. - Rebuilt chimney and repaired 4 window frames of dwelling.
(Monthly Report for June 1898, submitted July 8, 1898, p. 54.)

No. 317. - Fire Island, N.Y. - Made and fitted new chariot for lens. Rebuilt chimney and repaired 4 window frames in dwelling. Telephone connection with this office established May 5, '98. May 18, Station furnished with signaling outfit as follows: 1 Marine glass, 1 set code signal flags, 1 set halyards, 1 copy International Code of Signals, 1 copy Instructions for Signaling.
Telephone connection established May 5, '98. Station connected by telephone with Life Saving Service line so that messages can be sent to Quoque Life Saving Station and connection made there with Central Station at Quoque so that messages can be repeated at the Life Savings [sic] Station direct with this office.
(Annual Report for the year ending June 30, 1898, p. 92.)

No. 317. - Fire Island, N.Y. - 6 plates lantern glass and 4 steel set screws for lens furnished.
(Monthly Report for October 1898, submitted November 8, 1898, p. 159.)

No. 325. - Fire Island, N.Y. - 2, 1st/order damper rods for lamps furnished.
(Monthly Report for December 1898, submitted January 11, 1899, p. 174.)

1899 No. 325. Fire Island, N.Y. - 10 plates lantern glass and 4 storm pane clamps furnished.
(Monthly Report for January 1899, submitted February 9, 1899, p. 183.)

No. 325. Fire Island, N.Y. - 1 steel bolt for lens pedestal furnished.
(Monthly Report for February 1899, submitted March 9, 1899, p. 190.)

No. 325. Fire Island, N.Y. - New clock for lens completed and shipped to Sta., 29th.
(Monthly Report for April 1899, submitted May 9, 1899, p. 204.)

No. 325. Fire Island, N.Y. Made and fitted new clock for revolving lens.
(Monthly Report for May 1899, submitted June 8, 1899, p. 211.)

No. 325. Fire Island, N.Y. New revolving clock for lens, made and fitted; 16 plates, lantern glass, 4 storm pane clamps and two 1st/ damper rods delivered.
(Annual Report for the year ending June 30, 1899, p. 280.)

No. 341. Fire Island, N.Y. 12 balls for bearing of lens chariot wheels furnished. Authority to use a building and to erect a pole for experiments in wireless telegraphy granted to War Dept. Signal Office.
(Monthly Report for September 1899, submitted October 9, 1899, p. 346.)

No. 341. Fire Island, N.Y. Furnished, fitted and painted 13 board shutters for windows; pointed two sides and end of dwelling; furnished and fitted new joint for, and reset old smoke-jack - $89.00.
(Monthly Report for November 1899, submitted December 9, 1899, p. 361.)

Vol. LXIII No. 6.

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NEW YORK, SATURDAY, AUGUST 9, 1890.

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FIRE ISLAND.

The name Fire Island, which is used to designate a locality off the southern shore of Long Island and about forty miles from New York, has become well known for the following reasons: It is generally the first land sighted by vessels from European ports steering for New York; it is the location of one of the principal lighthouses of the country, as well as the marine observation station of the Western Union Telegraph Co. and government life-saving station, and has been the scene of a number of noted shipwrecks. This locality is really a part of the beach which extends from Fire Island Inlet, which is about two miles west of the lighthouse, and extends the entire length of the Atlantic coast of Long Island. The Great South Bay, of varying width, separates the beach from the Long Island shore. In the bay and about a mile from the northern shore of the beach is a group of five islands. It is claimed by some that this group was originally called Five Islands, that Fire Island is a corruption of this name which is now applied to the locality about the lighthouse, the correct appellation of which is Fire Island beach. Nearly on a line with the lighthouse and on the Long Island shore is the village of Babylon, which is ten miles distant.

The fast European steamers direct their course for Fire Island light, and it is part of a system which is so arranged that coasting vessels may keep in sight of one of the revolving or flashing lights. Many incoming European steamers first sight Montauk Point lighthouse, the light of which is a revolving one; then about thirty miles west Quogue light is seen, which is a steady one; then comes the revolving light at Fire Island, and finally the Navesink light on the Jersey coast. Excepting there be dense fogs, a vessel approaching the port of New York is never out of sight of one of these lights, and is thus safely guided to its destination. Montauk Point light is white varied by a white flash every two minutes, is 169½ feet above the sea level, and the light can be seen 19¼ miles. Quogue light is a fixed white, 160 feet above sea level, and can be seen 18¾ miles. Fire Island has a flashing white light every minute, is 168 feet above the sea level, and can be seen 19¼ miles, while the Navesink light is 248 feet above the ocean, and the light can be seen for 22½ miles.

The old Fire Island lighthouse which preceded the present structure was erected in 1826. It was octagonal in shape, built of stone and whitewashed. It stood about a hundred yards from the present structure and immediately upon the shore of the inlet, which is now more than two miles to the westward, the intervening space having been filled in with sand by the action of the sea, thus making a considerable extension of the beach. The present structure was completed in 1858, and is built of brick, laid on solid stone foundations, and the principle of construction is the same as that upon which Smeaton built the famous Eddystone light. The focal plane is 168 feet high. The light is a Fresnel of the first order. This is a combination of prisms and lenses by which the brilliancy of effect is so increased that compared to a simple reflection it is five to one. The axes of the reflectors are all parallel, and the number of reflectors used depends upon the desired interval between the flashes. The framework of the apparatus is revolved by clockwork, and the light which is concentrated and flashed out in this manner has been found to be much stronger than a fixed one. It is necessary to keep curtains before the lenses during the day, because they concentrate the rays of the sun to such an extent as to ignite the wicks of the burner. The heat thus concentrated is so powerful that it is impossible to occupy the space within the lantern for cleaning or repairs unless the curtains are drawn.

The thick lenses of the lantern are seen to be cracked and chipped off in places, and the keeper of the lighthouse states that this has been caused by ducks and geese in their migrations flying through the glass which covers the outside of the lantern, and which is an eighth of an inch thick, and striking the heavy lenses with their bills. He says that he has frequently come up to the lantern and found one or more ducks or geese flying around, wounded from the broken glass and spattering the machinery, lenses and floor with their blood. The large metal ball which surmounts the structure has been bent and nearly twisted from its position by flocks of brant, which is a species of wild geese, coming in contact with it. Sixty dead ducks have been picked up on the ground about the base of the lighthouse on a single morning, and at other times over a hundred birds of various kinds have been found. A large proportion of the very interesting information published by the United States Agricultural Department on the migration of birds is made up of facts obtained from the keepers of the various lighthouses. This light consumes 2,350 gallons of mineral oil each year.

A short distance to the eastward of the lighthouse is the marine observation station of the Western Union Telegraph Co. It is a wooden building about forty feet high and stands back from the surf nearly two hundred feet. Four large wire cables strengthen the building against the winter gales, which are very severe at this point. The building is connected by telegraph with New York, and the arrivals of ocean steamers are reported about six hours before they get to their docks at New York. This gives people who have friends on board time to prepare for their reception, and enables those who live as far distant as Albany or Philadelphia to reach New York before the passengers are landed. Observations were formerly made from the cupola of the Surf Hotel, a noted summer resort near by, but five years ago the present building was erected, which is specially adapted to the work of marine observation. Mr. Peter Keegan is in charge of this station, having previously performed a similar service on the New Jersey coast. He has been eighteen years in the service of the company, ten of which has been passed at this point. During the summer season the vicinity is much frequented by pleasure seekers, but at other times Mr. Keegan and his family only have for neighbors the lighthouse keeper and his family and the crew of the life-saving station, while communication with the mainland, except by telegraph, is not frequent. A constant watch has to be kept for incoming steamers.

Many of the vessels are from fifteen to eighteen miles away, and some go by in the night and in fogs and cloudy weather. So skillful has Mr. Keegan become in the work of detecting them, that during the whole time that he has been at his post, he has only made one mistake, and that was owing to the substitution of another steamer for the regular one on the Bremen line. His acquaintance with steamers has been formed entirely by noting their peculiarities at long range. Only once has he read the name of a passing vessel, and that was about three years ago, when the Amerique came within three miles of the shore. Mr. Keegan keeps a careful record of the departure of all regular steamers, also reports of storms, adverse winds, icebergs, and everything which would be likely to cause delay; and from his knowledge of the steamer's average speed, he approximates her arrival, and decides when he must be on the lookout. At night all steamers, when opposite Fire Island, send up a signal. That of the Inman line is two blue and red lights followed by a rocket showing blue and red stars. The Cunarders burn two Roman candles showing six blue balls. These signals merely indicate the line to which the vessel belongs.

To make sure of the name of the steamer, careful observation must be made of the side and stern lights. It is often with the greatest difficulty that their signals can be distinguished at night, as they are not always displayed at exactly the same point, so that as soon as the steamer comes in sight, the observer must fix his gaze steadily upon one of the lights until the signal is given, which makes the work very tedious indeed. During the day the signals are given with different colored flags, but these have been found to be very deceptive, as the colors appear differently under different conditions of the atmosphere.

Yellow is the color which can be the most distinctly seen on the ocean, and a flag of three colors, one of which is yellow, will appear to be all of that color at a long distance. No signals of this kind can be seen at a greater distance than five miles. In consequence of this, Mr. Keegan has been compelled to rely upon noting and remembering the peculiarities of the several steamers, and in doing this he has gained great proficiency. These peculiarities consist in the general outline of the vessel, position of the smoke stack, cabins, lifeboats, nature of the smoke, etc., as well as the course of the vessel. The Cunard steamers generally pass the observation station in the evening, while those of the French line pass early in the morning. On one of the smoke stacks of the Servia is a square white mark, while on the others of the Cunard fleet the mark is oblong. Certain vessels carry their sails in a peculiar way, while one steamer has a derrick in a certain place, while there are a number of other peculiarities which assist in their identification. Vessels are often distinguished merely by the smoke.

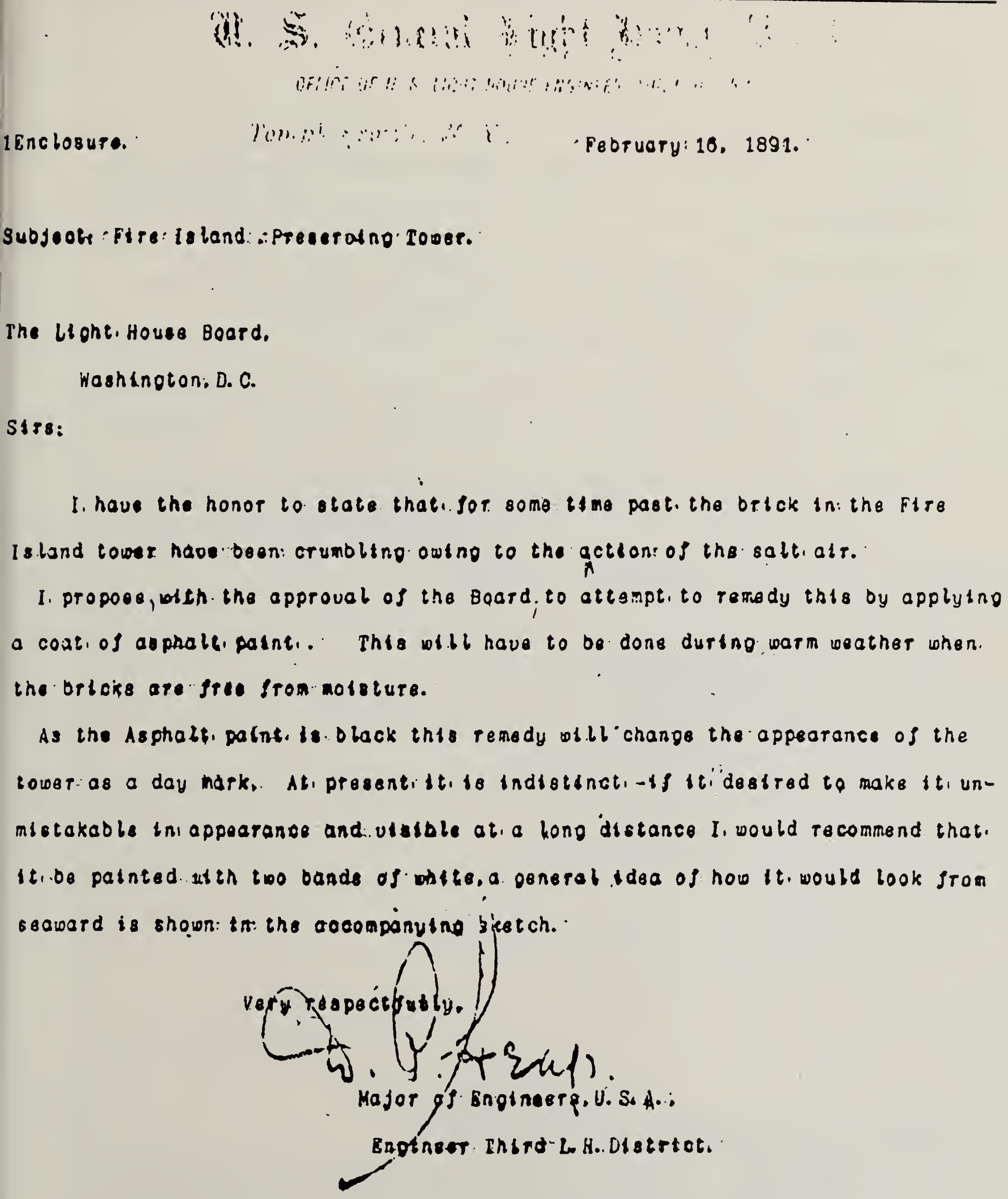
On one line a certain kind of soft coal is burned, and the smoke is so peculiar that the approach of the vessel is known at Fire Island before the hulls are seen. The fast liners are steering farther and farther away from Fire Island in order to shorten their course, and the difficulty of reporting them is consequently increased.

Last December the life-saving stations from Coney Island to Montauk Point were connected by telephone, so that in case of disaster help can be quickly summoned from one or more of the adjoining stations. The observatory has been made the central station, and all news of disasters is telegraphed to New York, and thus the owners or consignees of vessels know of a disaster anywhere on the Long Island coast almost as quickly as if it had happened in New York harbor.

* * *

It has hitherto been supposed that the maximum depth of the Mediterranean was 10,785 feet, between Sicily and Sardinia. Lieutenant Magnaghi, of Italy, has found a depth of 13,550 feet, between Malta and Candia.—*Revue Geographique.*

APPENDIX C96.



U. S. Coast Light-House [illegible]

OFFICE OF U. S. LIGHT-HOUSE ENGINEER, [illegible]

Tompkinsville, N. Y.

1Enclosure.

February 16, 1891.

Subject: Fire Island: Preserving Tower.

The Light-House Board,

Washington, D. C.

Sirs:

I have the honor to state that for some time past the brick in the Fire Island tower have been crumbling owing to the action of the salt air.

I propose, with the approval of the Board, to attempt to remedy this by applying a coat of asphalt paint. This will have to be done during warm weather when the bricks are free from moisture.

As the Asphalt paint is black this remedy will change the appearance of the tower as a day mark. At present it is indistinct - if it desired to make it unmistakable in appearance and visible at a long distance I would recommend that it be painted with two bands of white, a general idea of how it would look from seaward is shown in the accompanying sketch.

Very respectfully,

D. P. Heap.

Major of Engineers, U. S. A.,

Engineer Third L. H. District.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 885, page 230

March 2, 1891

"The Naval Secretary read a letter from the 3rd Engineer, 16 Feby. '91, stating that the brick in Fire Island light - tower are crumbling, and proposing to apply a coat of black asphalt paint, during the warm weather when the bricks are free from moisture, thus changing the color of the light-house to white and black alternately."

Approved.

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 17, page 296

7 March 1891

Major D. P. Heap U.S.N.
Engineer 3rd Light-House District
Tompkinsville, N.Y.

Sir:

Referring to your letter of 16 Feby. 1891, the Board at its session held on 2 March 1891, ordered that the tower of the Fire Island, N.Y., light-station be painted with two bands of black and two of white, alternately as shown on the tracing accompanying your letter.

You are requested to take the proper measures to have this order by the Board carried into effect.

Respectfully,

Commander, U.S.N.
Naval Secretary

Field Records of the Light-House Board and Bureau
Records of the Third-Light House District (New York), 1854-1939
Vol. 68, Letters from the Light-House Board, March 6, 1891 to May 18, 1891

A-

RECEIVED
AUG 8 1891
Eng. 3d D.

NOTICE TO MARINERS.

(No. 82, of 1891.)

UNITED STATES OF AMERICA—NEW YORK.

Change in the Color of the Tower at Fire Island Light-Station.

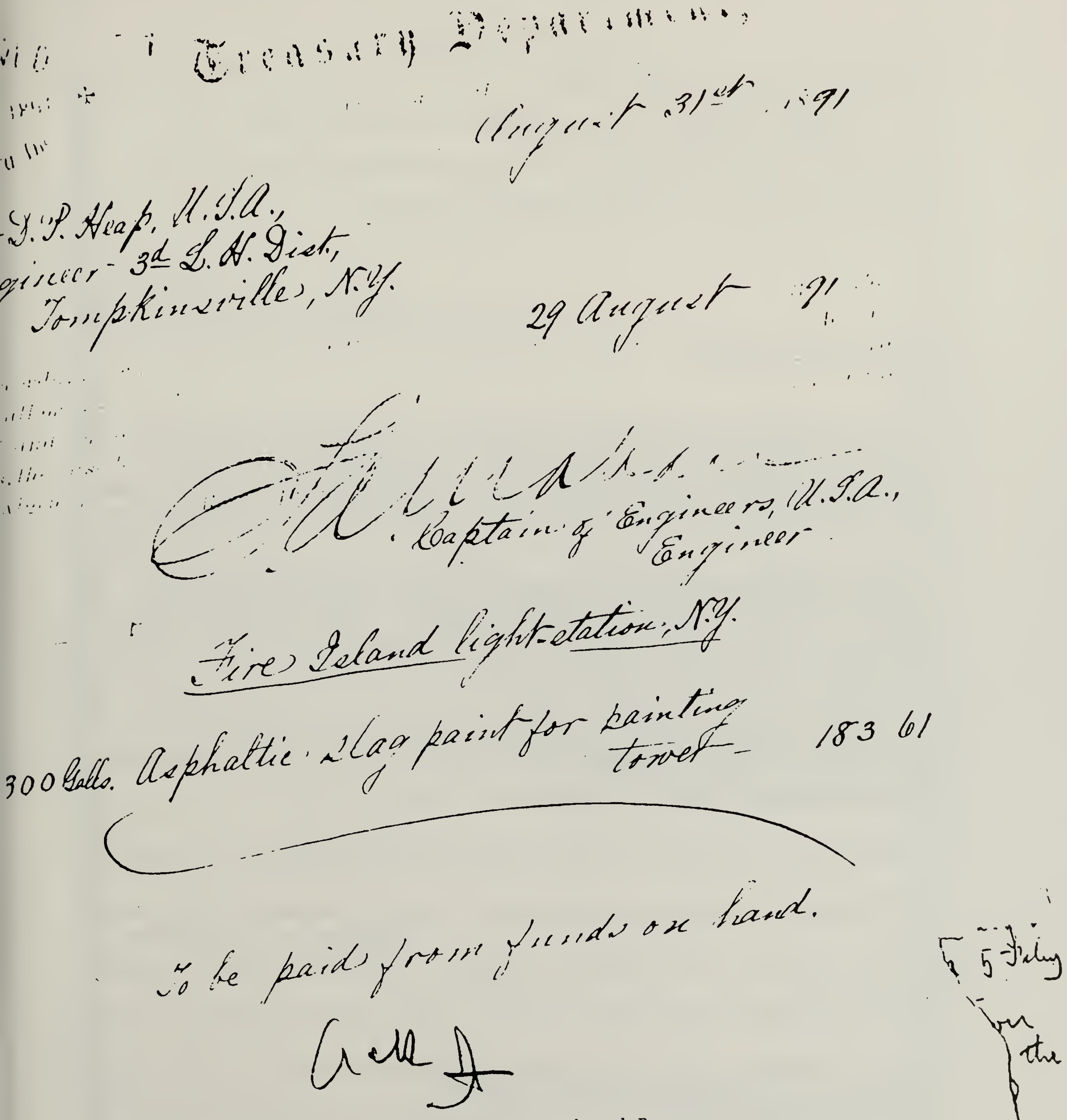
Notice is hereby given that, during the month of August, 1891, the color of the tower at Fire Island Light-Station, south side of Long Island, N. Y., will be changed from yellow to alternate bands of black and white, two of each color. Each band will be about 35 feet wide.

By order of the Light-House Board:

JAMES A. GREER,
Commodore, U. S. Navy,
Chairman.

Office of the Light-House Board,
Washington, D. C., August 6, 1891.

APPENDIX C100.



Treasury Department,

August 31st 1891

D. P. Heap, U.S.A.,
gineer 3d L. H. Dist,
Tompkinsville, N.Y.

29 August '91

Captain of Engineers, U.S.A.,
Engineer

Fire Island light-station, N.Y.

300 Galls. Asphaltic slag paint for painting tower – 183 61

To be paid from funds on hand.

Field Records of the Light-House Board and Bureau.
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from Light-House Board (July 29, 1891 to October 26, 1891), Vol. No. 70
This page and previous page (notice to mariners) are from
the same volume.

7 May, 1894

"The Committee on Lighting, to which had been referred the papers relating to the proposed installation of the bivalve lightning light, to be operated by an electric plant, at the Fire Island Light-Station, N.Y., returned them with the following favorable report:

Washington 5 May, 1894

The Light-House Board:

Sir:

The Committee on Lighting, to which were referred on 21 April '94 the papers relating to the advisability of installing the bivalve lightning light, now at the General Light-House Depot, at the Fire Island, N.Y., light-station, has had them under consideration, and returns them with the following report:

In accordance with the joint report on this subject, made by the district officers 19 April, '94, your committee recommends that proper measures be taken to have the bivalve lightning lens in question installed at the Fire Island light-station, and that electricity be used as the illuminant, with steam as a motive power.

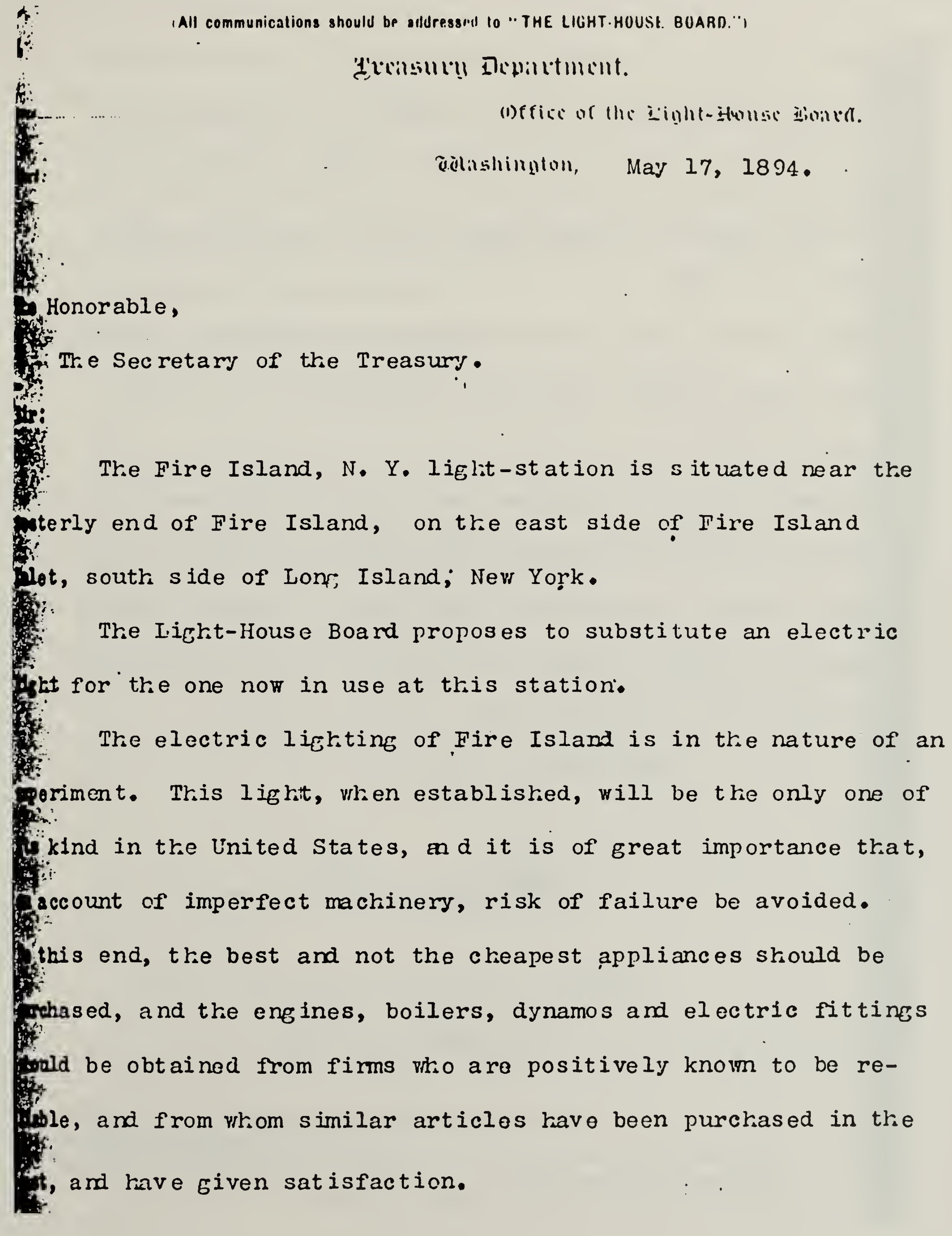
Recommendation is also made that a dynamo be set up and tested at the General Light-House Depot, before it is placed at Fire Island, the boiler and engine ordered for the electric light plant at the General Depot to be used to furnish the power.

Respectfully

J. C Mendenhall
Chairman Com. on Lighting

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 16, page 358

APPENDIX C102.



(All communications should be addressed to "THE LIGHT-HOUSE BOARD.")

Treasury Department.

Office of the Light-House Board.

Washington, May 17, 1894.

Honorable,

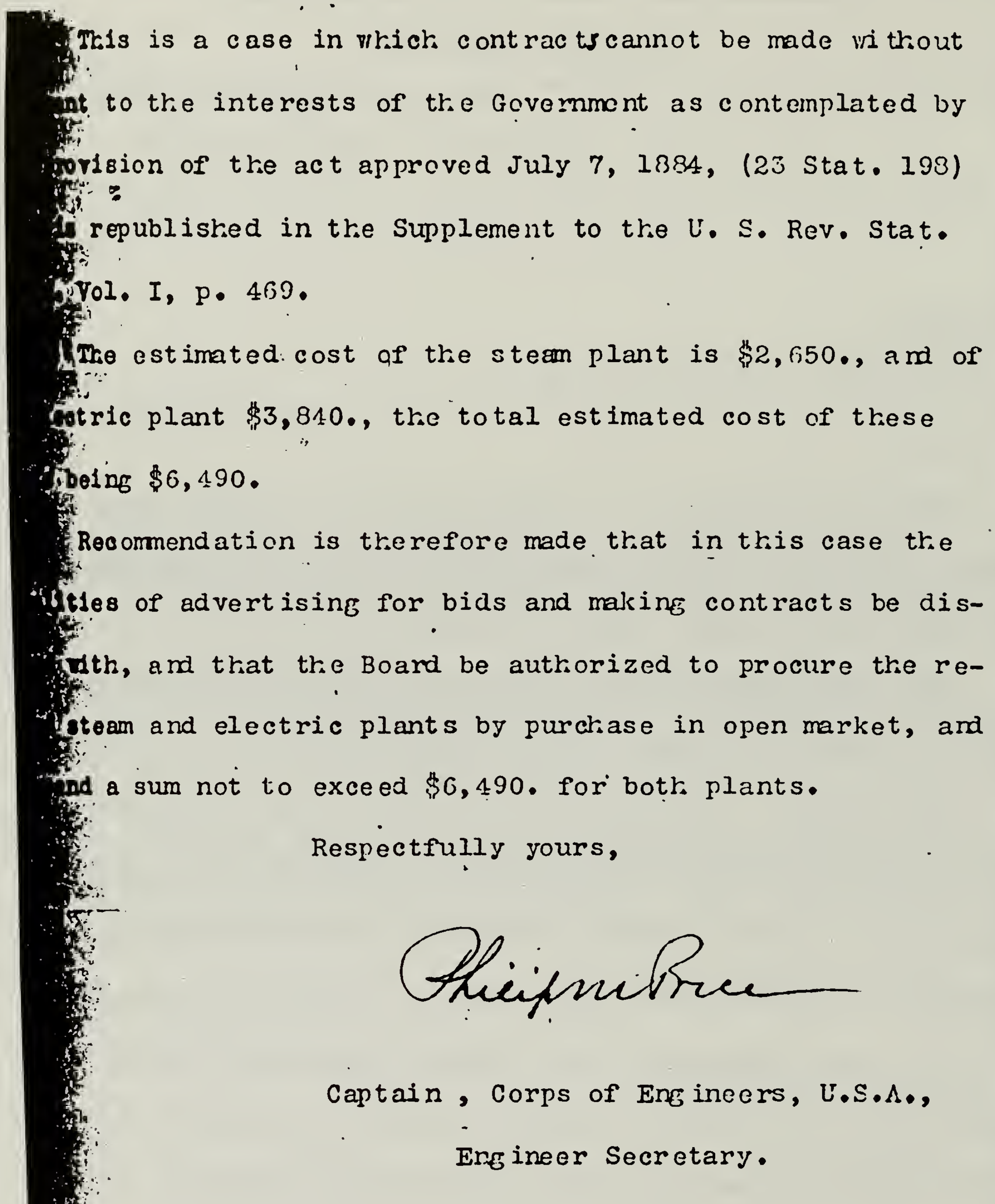
The Secretary of the Treasury.

ir:

The Fire Island, N. Y. light-station is situated near the terly end of Fire Island, on the east side of Fire Island let, south side of Long Island, New York.

The Light-House Board proposes to substitute an electric ht for the one now in use at this station.

The electric lighting of Fire Island is in the nature of an eriment. This light, when established, will be the only one of kind in the United States, and it is of great importance that, account of imperfect machinery, risk of failure be avoided. this end, the best and not the cheapest appliances should be rchased, and the engines, boilers, dynamos and electric fittings uld be obtained from firms who are positively known to be reble, and from whom similar articles have been purchased in the t, and have given satisfaction.



This is a case in which contract cannot be made without nt to the interests of the Government as contemplated by ovision of the act approved July 7, 1884, (23 Stat. 198) republished in the Supplement to the U. S. Rev. Stat. Vol. I, p. 469.

The estimated cost of the steam plant is $2,650., and of ctric plant $3,840., the total estimated cost of these being $6,490.

Recommendation is therefore made that in this case the ties of advertising for bids and making contracts be dis- with, and that the Board be authorized to procure the re- steam and electric plants by purchase in open market, and nd a sum not to exceed $6,490. for both plants.

Respectfully yours,

Captain , Corps of Engineers, U.S.A.,

Engineer Secretary.

Correspondence Received by the Light-House Board, 1853-1900.
National Archives RG 26
Bound in Letter Book No. 1025, page 408

3 May 1897

"The Chairman called the attention of the Board to the fact that the electric illuminating apparatus which it had ordered should be placed at Fire Island, and which order it had afterward rescinded was not now in use, and he suggested that the proper measures be taken to place it where it would do the most good."

Referred to the Committee on Lighting

Journals of the Light-House Board, 1850-1908
National Archives RG 26
Vol. 18, page 439

Sept. 9, 1899

Fire Island Lt. Sta.

Material & Labor for repairs to dwelling	89.00

Abstract yr. Enclosed bids.

Benjamin S. Raynor - Islip L.I.	$ 89.00
A. W. Barto, Bayshore L.I.	$ 95.00
W. H. Foster	$115.00

Correspondence of the Light-House Establishment, 1789-1850.
National Archives RG 26
Vol. 1321, page 600

ANNUAL AND MONTHLY REPORTS TO THE LIGHT-HOUSE BOARD FROM THE ENGINEER AND INSPECTOR THIRD DISTRICT

1900's

1900 No. 341. Fire Island, N.Y. 8 plates lantern glass (4) 27 $^{11}/_{16}$" x 38 $^{5}/_{8}$", (4) 27 $^{11}/_{16}$ x 39 $^{1}/_{8}$" and 5 pairs knobs and 3 catches for doors furnished.
(Monthly Report for March 1900, submitted April 9, 1900, p. 386.)

No. 341. Fire Island, N.Y. Overhauled revolving machinery of lens.
(Monthly Report for May 1900, submitted June 8, 1900, p. 401.)

No. 341. Fire Island, N.Y. Furnished, fitted and painted 13 board shutters for windows; pointed 2 sides and end of dwelling; repaired and reset smoke-stack; 5 pairs of knobs, 3 catches for doors, 6 plates lantern glass and 12 balls for lens chariot bearing furnished, lens machinery overhauled.
A series of experiments in wireless telegraphy were made at this station by the signal officers of the War Department, - Use of building and grounds for the purpose being granted by the Board under date of 15 September '99.
(Annual Report for the year ending June 30, 1900, p. 32.)

No. 348. Fire Island, N.Y. Plunger valve of lamp repaired.
(Monthly Report for November 1900, submitted December 8, 1900, p. 437.)

1901 No. 348. Fire Island, N.Y. Repaired one burner, 1st/order lamp.
(Monthly Report for March 1901, submitted April 8, 1901, p. 468.)

No. 348. Fire Island, N.Y. The work of removing damaged brick wall, on south side of foundation, and replacing it with a new 12" brick wall 54" in length, and portion of same on east side, the relaying of flagging on pier, and building a new fence on repaired parts of wall - authorized Nov. 13, 1900 at cost of $540 - has been completed.
Float chamber for lamp repaired and returned to station.
(Monthly Report for June 1901, submitted July 8, 1901, p. 493.)

No 348. Fire Island, N.Y. 1 burner and plunger valve and float chambers of lamp repaired and returned to Station; 54 lineal ft. of damaged foundation wall, on south side, replaced by new 12" brick wall; east wall repaired and partly replaced by new brick wall; flagging of pier relaid and pier fence repaired and portions rebuilt. Work authorized by Board Nov. 13, 1900, at cost of $540.00.
(Annual Report for the year ending June 30, 1901, p. 127.)

No. 348. Fire Island, south side of Long Island, New York. A first order flashing white light; first order 5 wick burner. Salaries .... $1690.00. The supplies furnished were paint, brushes, putty, medicine, fire brick, stove castings and lime. The pier was rebuilt on two sides. The repairs needed are a new door, storm panes and clamps for lantern, new railing

for tower deck, new window frames for dwelling, and repairs of pumps and frames of wells.
The Station is in very good condition.
(Annual Inspector's Report for the year ending June 30, 1901, p. 44.)

No. 358. Fire Island, N.Y. Repaired brick wall damaged by lightning $14.00; 3 cells of Victor dry battery furnished for telephone.
(Monthly Report for August 1901, submitted September 9, 1901, p. 210.)

No. 358. Fire Island, N.Y. Made new rachet pawl.
(Monthly Report for October 1901, submitted November 9, 1901, p. 231.)

No. 358. Fire Island, N.Y. Sent a machinist to Station to measure the new iron rail on lantern.
(Monthly Report for November 1901, submitted December 9, 1901, p. 242.)

No. 358. Fire Island, N.Y. Made and furnished two new ratchet pawls for 1st/order clock.
(Monthly Report for December 1901, submitted January 9, 1902, p. 250.)

1902 No. 358. Fire Island, N.Y. Made one new, and repaired old hammer of Keeper's call bell in tower. The iron railing authorized Dec. 30, 1901 is nearly complete.
(Monthly Report for January 1902, submitted February 8, 1902, p. 260.)

No. 358. Fire Island, N.Y. Two new No. 2 well pumps with platforms and covers furnished and fitted.
(Monthly Report for April 1902, submitted May 1902, p. 286.)

No. 358. Fire Island, N.Y. Two oil carriers and one 1st/order burner repaired and returned to Station.
(Monthly Report for June 1902, submitted July 8, 1902, p. 306.)

No. 358. Fire Island, New York. Furnished and fitted 2 new #2 well pumps with platforms and covers and repaired brick wall damaged by lightning, July 3, 1901. Furnished 3 cells of Victor dry battery for telephone and made two new ratchet pawls for first order clock, and repaired and returned 2 oil carriers and I first order burner; also measured for new iron rail on lantern and repaired keeper's call bell in tower. New iron railing finished and waiting to be sent.
(Annual Report for the year ending June 30, 1902, p. 360.)

No. 358. Fire Island, New York. A first-order flashing white light; 1st/order lamp.
Salaries .... $1690.00.
A range and fixtures, medicines, rope, oil and paints were supplied.
A new wall was put up in place of the one destroyed by lightning, July 3, 1901.
The needs are a new railing on deck of tower, (awaiting transportation), the gutters and oil house to be patched and the Station boat to be repaired.
The Station is in good order.
(Annual Inspector's Report for the year ending June 30, 1902, p. 73.)

No. 358. Fire Island, N.Y. Fitted new iron railing on lantern deck and repaired plaster in dwelling.
(Monthly Report for October 1902, submitted November 8, 1902, p. 460.)

1903 No. 358. Fire Island, N.Y. Furnished two ratched pawls for lens clock.
(Monthly Report for January 1903, submitted February 7, 1903, p. 485.)

No. 369. Fire Island, N.Y. Fitted new iron railing on lantern deck and repaired plaster in dwelling. Furnished two ratchet pawls for lens clock.
(Annual Report for the year ending June 30, 1903, p. 83.)

No. 369. Fire Island, N.Y. Fitted new iron door to lantern and two new rollers on outside storm door of lantern, repaired curtain rollers of lantern.
(Monthly Report for September 1903, p. 171.)

No. 369. Fire Island, N.Y. Repaired one 1st/order lamp.
(Monthly Report for October 1903, p. 178.)

No. 369. Fire Island, N.Y. Furnished 6 plates of lantern glass.
(Monthly Report for November 1903, p. 184.)

1904 No. 369. Fire Island, N.Y. Two brass speaking tubes from tower to watch room furnished.
(Monthly Report for May 1904, p. 234.)

No. 369. Fire Island, N.Y. Fitted new iron door to lantern and two new rollers on outside storm door to lantern. Repaired curtain rollers of lantern. Repaired 1 first order lamp. Furnished six plates of lantern glass. Two brass speaking tubes from tower to watch room furnished.
(Annual Report for the year ending June 30, 1904, p. 299.)

1905 No. 372. Fire Island, N.Y. Fitted three sections of new lining in dome of lantern, also new smoke stack, and repaired copper roof of lantern. Extended and completed survey of the Light-house reservation.
(Annual Report for the year ending June 30, 1905.)

1906 No. 372. Fire Island, N.Y. The work of repairing retaining wall of light-house pier, cellar window embrasure, surface flagging of pier and pier railing, under agreement with Joseph Hein, in the sum of $235.00, as per Board's authority of Sept. 8th, 1905, was completed on October 30, 1905. Furnished new kitchen sink and fittings. Furnished 10 plates lantern glass.
(Annual Report for the year ending June 30, 1906, p. 260.)

No. 372. Fire Island, N.Y. Two (2) new dampers and rods for 1st Order lamps furnished.
(Monthly Report for December 1906, p. 370.)

1907 No. 382. Fire Island, N.Y. Furnished 3 pairs sash with train &c., and materials for repairs to plaster in dwelling.
(Monthly Report for June 1907, p. 411.)

No. 382. Fire Island, N.Y. Furnished two new dampers and rods for 1st Order lamps, and 3 pairs sash with trains, &c., and material for repairs to plaster in dwelling.
(Annual Report for the year ending June 30, 1907, p. 70.)

No. 382. Fire Island, N.Y. Fitted new window frames and sash; new steps at kitchen entrance of dwelling; repaired and reglazed old sash.
(Monthly Report for July 1907, p. 418.)

No. 382. Fire Island, N.Y. Installed new vapor lamp.
(Monthly Report for November 1907, submitted December 9, 1907, p. 167.)

No. 382. Fire Island, N.Y. The new vapor lamp installed in the month of November went into operation December 3rd. The duration of flash was reduced to 4 seconds and the dark interval increased to 56 seconds.
(Monthly Report for December 1907, submitted January 9, 1908, p. 175.)

1908 No. 382. Fire Island, N.Y. Installed new vapor lamp; fitted new window frames and sash; repaired and reglazed old sash. $540.00.
(Annual Report for the year ending June 30, 1908, p. 257.)

March 5, 1901

The Lighthouse Board
Washington, D.C.

Engineering Record of March 2, 1901 has a description of the method used to protect the Light House Tower at Grande Pointe au Sable, 9th/ District.

For some years the brick tower at Fire Island Lt. Sta., NY has disintegrated in the same way.

I respectfully request a copy of the plans and specifications for the protection of the Light-House at Grande Pointe au Sable as the same method may be used at Fire Island.

Lieut. Col., ______________
Corps of Engineers, U.S.N.
3rd L.H. District

Correspondence of the Light-House Board, 1901-1910
National Archives RG 26
Box 50 E48 Fire Island File #220

APPENDIX C107.

Metal Casing for Light-House Tower at Grande Pointe au Sable.

The question as to repairs or rebuilding of a brick light-house tower is one of the perplexing problems of the light-house engineer. A tower has been standing, say, from 30 to 40 years. During the last few years complaint after complaint has been coming in regarding its condition. The bricks are disintegrating, cracks appear in the surface, the water soaks in, fears are expressed regarding its stability, and so on. Minor repairs have been made, the tower has been pointed up, cement has been used liberally, and for a short time the tower gives satisfaction. This has been done year after year until finally it is found necessary to either make some radical repairs to the structure or build an entirely new tower. Rebuilding is expensive and only to be resorted to in extreme cases. Several methods have been proposed for repairing and strengthening a tower at a moderate cost, so that for a considerable time to come it will remain in good condition and subserve all the functions of a new tower.

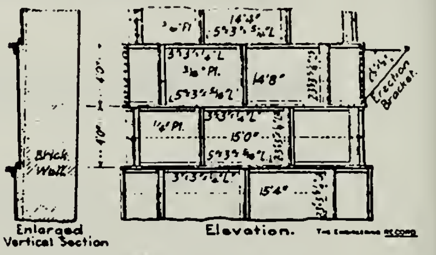
First. Removing the outer layer of brick over the entire surface of the tower and relaying new and hard brick in its place. This scheme has not been popular, as the same causes which have been active in disintegrating the old brick would be immediately operative upon the new ones, rendering them porous within a few years and so necessitating a repetition of the chipping and resurfacing process.

Second. Putting a system of horizontal bands around the tower and connecting these by vertical members or stays to which guy rods are attached to increase stability of the tower. This was done at Twin River Point, Wis., in 1892 under the direction of Brig.-Gen. William Ludlow, at that time light-house engineer of the Ninth District. The tower was 100 feet high from base to focal plane, and 19 feet 2 inches in diameter at the base. The 8 x 5/16-inch horizontal bands were 8 feet apart, and the eight vertical stays were 2½ x ⅜-inch tees. The guy rods were 1¼-inch wire ropes leading to stone anchorages in the ground. Two years after thus repairing it several new cracks appeared and necessitated the erection of a new skeleton tower. The upper portion of the old structure was taken down and the lower part converted into living rooms embodied in the design of a new keeper's dwelling.

THE ENCASED TOWER AT GRANDE POINTE AU SABLE.

Third. Encasing the tower with a metal structure. This scheme has been adopted during the past year at Grande Pointe au Sable, Mich., and it is believed will prove satisfactory.

This light-house has a conical brick shaft 79½ feet high resting on a stone base and capped by a third-order lantern. The tower is 100 feet high from the base to the focal plane, 19 feet 2 inches in diameter at the base and 12 feet 8 inches in diameter at the top of shaft, being practically similar to the tower at Twin River Point, Wis. It was erected in 1867 and after a time its bricks began to disintegrate and cracks appeared, making it necessary to point it up almost every season. After each of the severe rainstorms which are of common occurrence in the neighborhood water would seep through the brick and the tower would become damp and "sweat." It was finally decided to encase the conical part of the tower with a metal shell, and to fill in the space between it and the tower with a fine concrete grouting. The plates of each section are arranged to bolt to one another by vertical angles and to the sections above and below by horizontal angles riveted to them. The sections are cylindrical, each having a radius 2 inches shorter than that of the section next below, so that the lines joining the tops of the plates are parallel to the conical surface of the tower. The offset of 2 inches was made by using a 5 x 3-inch flange angle at the top and a 3 x 3-inch angle at the bottom of each plate.



DETAILS OF CASING.

The tower is connected with the dwelling by a covered pasage-way 8 feet wide, and the two lower sections of plates are cut away to pass around it.

Each horizontal section was put up a plate at a time and after the eight plates had been tightly bolted together the space between them and the tower was filled with concrete thoroughly rammed in.

The erection scaffolding had brackets made of 2½ x ½-inch iron bolted to the vertical flanges of the plates and supporting 2 x 12-inch planks. All hoisting was done with a block and tackle swung from the top of the tower. One man was kept busy all the time arranging and shifting the brackets and planking. In changing the brackets he was hoisting in a boatswain's chair and getting his knees under one of the planks he would be swung up and pulled to one side by two men with a tag rope until the plank could be shifted so as to be supported clear of the bracket intended to be removed. He would swing to the bracket, unbolt it, and be raised to the new position for the bracket, bolt it in place and, after similarly moving the second bracket, would carry the platform plank by plank to its new position.

It was found after the metal work was received that there was a list to the tower, and that in some places its diameter was greater than had been assumed, making it necessary to chip off some of the brickwork. This chipping, however, is believed to be useful in improving the bond with the concrete filling.

Circular windows were provided opposite the old windows of the tower, the openings for these being cut through the plates in the field.

The casing was examined after erection and openings in it were filled with lead whenever possible; it was then painted with three horizontal stripes—white, black and white—as a characteristic day mark.

The work was designed by Mr. Edward L. Woodruff, M. Am. Soc. C. E., assistant engineer, under the direction of Captain James G. Warren, Corps of Engineers, U. S. A., engineer of the Ninth Light-House District, Milwaukee, and was erected during May and June, 1900, by a superintendent of the Light-House Service. The structural steel was made by the J. G. Wagner Company, Milwaukee, Wis., the contract price being $3,170.55. The total cost of the work was $4,925.21, inclusive of board for the men. This amount is exclusive of transporting the material from Milwaukee by the light-house tender.

APPENDIX C108.

All communications should be addressed to
"Light-House Engineer, Third District."

Light-House Establishment,
General Depot.
Office of Engineer, Third District.

8 Inclosures.

Tompkinsville, N.Y., Dec. 27, 1901.

Subject: Fire Island Lt. Sta. -
Bids - Railing, &c.

The Light-House Board,
Washington, D.C.

Sirs:

I have the honor to enclose, herewith, seven bids receive Dec. 24, 1901, opened at the time and place stated in the advertisement, for furnishing cast-iron railing posts, railing, &c. for Fire Island Light Station, N.Y., - also, abstract of same.

The bid of the Allentown Rolling Mills is the lowest in price, and being reasonable in amount and advantageous to the Government, I respectfully recommend its acceptance in the sum of $124.06.

Although this bid was received at 2:15 p.m. by the regula mail (after the time of opening) it was impossible for the bidder to have made any alteration in it, as it was received at the Post Office at 12 o'clock noon, and could not be delivered at the time stated.

Appropriation from which above will be paid, is : Repair &c. of Light-Houses, 1902, from funds already allotted.

Respectfully yours,

Major, Corps of Engineers, U.S.A.
A.R.B. Engineer 3rd L.H. District.

APPENDIX C108.

22

ABSTRACT OF BIDS FOR CAST IRON RAILING, POSTS, &C. FOR FIRE ISLAND LIGHT STATION, N.Y. OPENED IN OFFICE OF ENGINEER 3RD LIGHT HOUSE DISTRICT AT NOON OF DECEMBER 24, 1901.

Bidders.	Amount
Allentown Rolling Mills, Allentown, Pa.; received Dec.24, at 2:15 p.m. by mail	$124.06
Ellicott Machine Co., Baltimore, Md.	159.00
N.J.Foundry & Machine Co., 26 Cortlandt St., N.Y.City	198.00
Morton Iron Works, 100 Greene St., Brooklyn, N.Y.	223.80
Chamblin & Scott, Richmond, Va.; received Dec.24, 1901, by mail, by special delivery, at 2 p.m.	241.85
West Side Foundry Co., Troy, N.Y.	310.00
Houston & Co., 26 Cortlandt St., New York City	806.00

Correspondence of the Light-House Board, 1901-1910
National Archives RG 26
Fire Island File #220

APPENDIX C108.

Maj.

220 [illegible] Department

P. Rossell U.S.A.
Engineer 3rd L. H. Dist.
[illegible]

27 Dec.

D.W. Lockwood
[illegible] Corps of Engineers
[illegible]

Fire Island
Lt. Station N.Y.

Cast iron railing, posts etc. 124 06

[illegible]

allotted
Repairs 1902.

Statement of Cost of Supplies, etc., furnished
to the Engineer 3rd District, during the
month of September, 1903.

1413.	Blacksmith making ironwork	Fire Island Lt. Sta.

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1892-1908

APPENDIX C110.

Copy

Department of the Navy
Bureau of Equipment

Washington, D. C.

Lt. Col. W. T. Russel, U.S.A.
Engineer 3rd Lighthouse District. 4-25-06

Sir:

1. Referring to my visit to Fire Island to select a site for a wireless station, with Mr. Lamy; I am of the opinion that a suitable site can be found, within the limits of an area of 500 square feet, bounded on the east by the east boundary line of the reservation, the line bounding the north side of the square being at right angles to the boundary line and cutting it at a point 250 ft. south of the stone post marked A on the chart of the reservation, dated June, 1905.

2. The total area occupied will be much less than the area referred to, probably not exceeding 1 acre, but if permission is given to erect masts and buildings at the most suitable points in the area referred to above, it may obviate difficulties not now foreseen but which may arise, if the exact site for masts and buildings is now designated.

3. The entire area of 500 ft. square appears to be now unoccupied. Its nearest point to the light tower and dwelling is 275 feet distant and its southern boundary is nearly east of the light tower so that no interference with the light can result.

4. It is understood that right of way to the beach, and the privilege of erecting a boat house, if found necessary, is also requested.

5. The buildings to be erected will be a 1½ story combined dwelling and operating house, a power house, storehouse and water closet, similar to those now at Montauk Point.

6. The masts will be two in number, approximately 180 ft. high and from 150 to 200 ft. apart, with guys extending about 60 ft. farther on each side.

7. The dwelling house will not be more than 100 ft, from the center of a line joining the masts and the other buildings will be in the immediate vicinity of the dwelling.

8. If the location in the area proposed meets with your approval ~~ax~~ the Lighthouse Board's permission to proceed with the erection of the station will be requested.

National Archives
RG 26
Site, New York No. 40
Title File

Copy

Bureau of Equipment
Washington, D. C. May 5, 1906

No. 132,094.
SSR...ALO

Sir:

1. The Bureau encloses herewith, for your information, a copy of a letter from the Light-House Board relative to the establishment of a wireless telegraph station at Fire Island.

2. An officer from the Bureau recently visited the Fire Island Light-House Reservation in company with a representative of the Engineer of the Third Light-House District, with the result that permission has been given to build the wireless telegraph station at the most suitable place that can be found within the area enclosed by pencil in the northeast corner of the reservation, this area being marked "W.T." and shown on a blue print of the reservation enclosed herewith.

3. This area is comparatively level, unoccupied, and not more than 10 feet above permanent water level.

4. In accordance with the Board's letter, the exact position of the masts and buildings will be furnished as soon as they have finally been decided upon.

5. When completed the Fire Island Station will have two masts 180 feet high and about 200 feet apart, with a ship type aerial leading to an operating room near the center of the line joining the masts. The station will be designed to communicate, day and night, with Newport, R. I.; Navy Yard, New York, and Cape Henlopen, Del. It will be provided with a motor-generator of 5 k.w. maximum output, with the storage batteries of the Montauk Point and Highlands stations combined, and with the present engine and dynamo at Montauk for charging the batteries. In this connection estimated cost of 10 H.P. oil engine, direct connected to 5 k.w., 60 cycle, 110 volt alternator, is requested.

6. The buildings will be of the same general type as those at Montauk Point and Highlands.

7. The masts will be stayed independently and will have concrete foundations and four concrete anchors for each. Spread of rigging about 50 feet from mast on each side, one lower, one topmast and one top-gallant guy set up to each anchor. All rigging of wire, top-gallant guys, in three sections; topmast guys in two sections, and lower guys in one. Approved strain insulators between sections of guys and all guys set up with hemp lanyards. (Information concerning wooden strain insulators can be obtained from the Navy Yard, Boston. Deadmen of sufficient size can be used in place of concrete anchors if desired.)

8. The Bureau wishes to erect the buildings and one mast, utilizing all available material from Montauk Point, and get the station in operation before discontinuing the Highlands station.

1264E

E.C. 6817

JM-F

August 28, 1906

Sir:

1. Referring to letter No. 139303, 8/7/06 (E.C.6248/06) of Bureau of Equipment in reference to Wireless Telegraph Station at Fire Island Beach and Navy Yard, Brooklyn, N.Y., and Bureau of Equipment's 1st endorsement No.139914, of 8/15/06 (E.C.6495) on same subjects.

2. The Equipment Officer reports as follows in regard to Fire Island Beach Station:

3. General Plan of Site.

A copy of print 15618-J has been previously forwarded (E.C. 6574, 8/21/06).

The bearings of stations at Newport, R.I.; Boston, Mass.; Cape Cod, Mass.; Navy Yard, Brooklyn; Cape Henlopen are indicated.

The Lighthouse is in a dead angle and it is considered that the metal part of the structure and its lightning conductor will be of but minor absorbtive effect at this angle and distance (575 ft.) It is considered that the proposed aerial of ship type will be efficient for transmission and reception in the disposition as shown, relative to the communicating stations.

4. Fences.

No fence has been included in the specifications for these grounds, as there is no fence separating the lighthouse from the Surf Hotel grounds and none seems required.

5. Communication Range.

It is desirable that the following stations be within the range of thoroughly reliable communication in winter and summer, with moderate atmospheric disturbances.

Navy Yard, Brooklyn, N.Y.	46 miles
Newport, R.I.	117 "

and under the same conditions the following be within the range of reliable transmission:

Cape Henlopen, Del.	164 miles
Boston, Mass.	163 "
Highland Light, North Truro, Cape Mass.	185 "

6. Aerial.

The aerials of these two stations to be of similar type and designed, constructed and adjusted for natural wave lengths of 650 meters.

The adjustment to 425 meters to be made by installation of capacity and increase to 950 meters to be made by installation of inductance.

The arrangement of the appliances to be such that all these adjustments be made from the floor level without the use of ladders, etc.

A spare leyden jar to be furnished to replace that in aerial when required.

To be constructed at Navy Yard.

The design to provide for a natural wave length of 650 meters (Note Par.23).

The disposition has been arranged with reference to the communication stations to provide for a high degree of efficiency in transmitting and receiving.

The contractor will, however, report to the Bureau as to any alterations in construction desired in aerials used in connection with this contract.

7. Lightning Switch.

To be constructed and installed so that it can be operated from the floor level of the operating room, without exposing the operator to danger, while the transfer of aerial to ground is being made. To be furnished by this Department.

8. Ground.

The recommended construction is as shown in print 15814-A previously forwarded with E.C. 6574, 8/21/06.

If later found necessary, buried wires and pipes can be installed as suggested by the Telefunken Co.

9. Power House.

The dimensions of the house shown are those considered suitable for the inclusion of the 5 K.W. belted outfit.

As stated in E.O.4776, 6/16/06, no data would be obtained from the makers as to the dimensions of the set, under the requirements of direct connections as indicated in Bureau of Equipment 132094, 5/5/06, (E.C.3642).

10. Circuits from Power House to Operating Room.

These are recommended to be of lead covered wire, led in a trench under ground to prevent induction from aerial.

11. Engine and Dynamo of Generating Set, Direct Connected.

These have been reported on in E.O.4776, 6/16/06.
It is considered that the generator should be direct current.

12. Storage Battery:

The present proposition to comprise:

Bureau of Equipment 132094, 5/5/06 (E.O.3642)

120 cells, 60 in two parallels, the ratings being

2.34 KW at	8 hour rate	117 volts ave.	20 amp.
4.68	3		40
9.36	1		80

also an equalizing resistance on Req.1284, 6/12/06, Bureau of Equipment (E.O.3802).

Statement of Cost of Supplies, etc., furnished
to the Engineer 3rd District, during the
month of June, 1906.

3870.	36 panes glass 8" x 10" 10 lbs. putty	Fire Island

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG 26
Letters from the Light-House Board to the Engineer, 1892-1908

APPENDIX C112.

Department of Commerce and Labor
LIGHT-HOUSE ESTABLISHMENT

OFFICE OF ENGINEER, 3D DISTRICT
TOMPKINSVILLE, N. Y.

Cost of 1st Order
lamp illumination.

November 19, 1907.

The Light-House Board,

Washington, D.C.

Sirs:-

I have the honor to acknowledge receipt of Board's telegram of November 18th, 1907, reading thus:

"Board requests statement of cost of installation and maintenance oil vapor lamp Fire Island, and comparative cost with old system. Casey, Engineer Secretary."

In compliance with this request I will state that the cost of the installation of the vapor lamp at Fire Island will be as follows:

2 lamps - complete - with tanks and fittings (all fittings in duplicate)	$99.75
Express charges Staten Island to Fire Island	2.50
60 mantles @ ¢55 each. Yearly supply	33.00
10 gals. alcohol @ 37¢. " "	3.70
Travelling expenses, labor and board (One man 6 days)	40.00
Contingencies	20.00
(The oil is at the station)	
	$ 198.95

Under similar conditions, without taking in consideration the cost of oil, the installation of the kerosene 5 wick plunger lamp will cost:

Copy of this in Draft Room Files
3d District "Costs" Fire Island
10 Sept 1910

	1 set of 2 lamps - $211.89 each	$423.78
Yearly) Supply))	50 yds wick (10 yds of each #1,2,3,4, 5) 44¢ yd	22.00
	60 chimneys with brass ring - 65¢ each	39.00
	Labor, travelling expenses, board	40.00
	Expressage for sending lamps	3.00
	Contingencies	20.00
		$547.78

The yearly maintenance of both lamps will be as follows - without taking in consideration the general supplies which are the same for both:-

Vapor Lamp. 55 m/m mantle

575 gallons mineral oil 8 93/100¢ per gallon	$51.35
60 mantles @ 55¢ each	33.00
10 gals. alcohol 37 ¢ per gallon	3.70
Incidentals	20.00
	$108.05

5 Wick Plunger Lamp

2300 gallons mineral oil	@ 8 93/100¢ per gal.	$205.39
50 yds wick -	@ 44¢ per yd.	22.00
60 chimneys -	@ 65¢ each	39.00
Incidentals		20.00
		$286.39

Respectfully,
In the absence and by approval of the
Engineer, 3rd L.H. District.

By

Asst. Engineer.

APPENDIX C112.

LIGHT HOUSE BOARD
RECEIVED
JUN 10 1908
No 220

L. H. ENGINEER
JUN 11 1908
RECEIVED

To the Chairman
of the Light-House Board,
Washington, D.C.

Sir

The undersigned steamship companies, ~~owners and agents of sailing vessels~~, and marine insurance companies, respectfully represent:

That it has been the enlightened policy of the United States Government to meet the requirements of the growing traffic of the Port of New York by providing for the safety and accessibility of the approaches and channels of this harbor;

That the light on Fire Island is the objective point which is made by all vessels approaching New York Harbor from the East after making Nantucket South Shoal Light-Vessel;

That it is of the greatest importance to the safety, and the uninterrupted course, of navigation that the light on Fire Island should be of a character equal to that of the best lights in existence elsewhere;

That the present light on Fire Island has not been changed for many years, is not a modern light, and is not of such power as should be provided for a light in this important position.

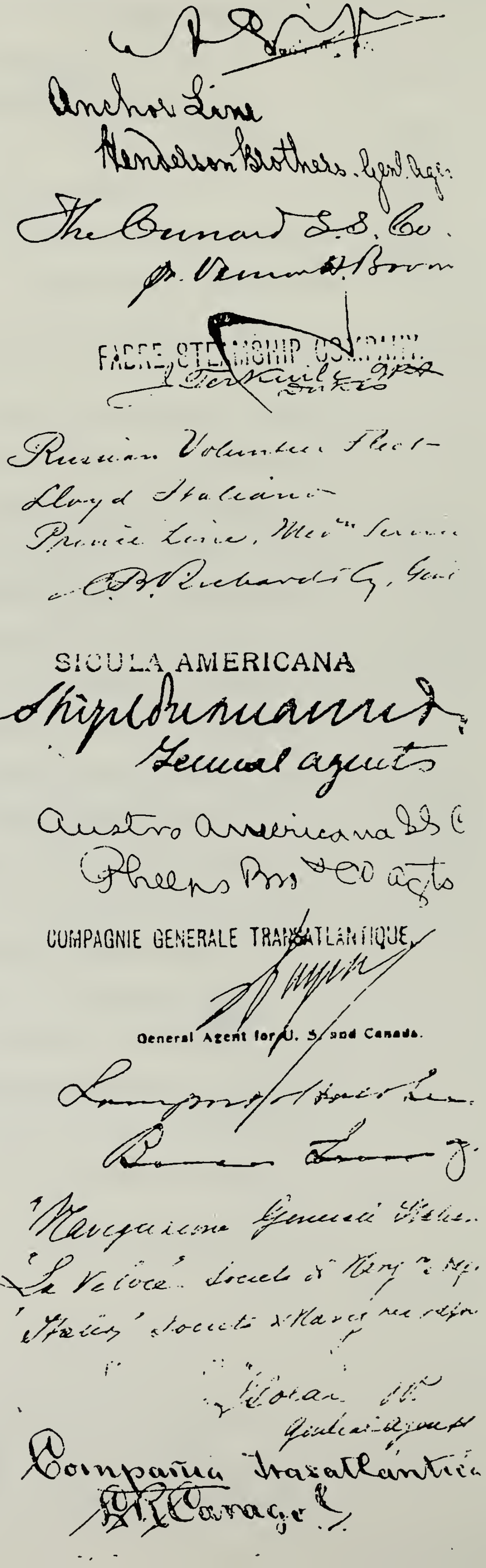
The undersigned, therefore, respectfully urge upon your Honorable Board that the light on Fire Island should be brought up to the highest standard of lights on this coast, and that its visibility and power should equal the standard of the light on Navesink.

And your memorialists will ever pray.

New York, June 5, 1908.

White Star Line
Red Star Line
American Line
Atlantic Transport Line

Correspondence of the Light-House Board, 1901-1910
National Archives RG 26
Box 50 E48, Fire Island File #220



Anchor Line
Henderson Brothers, Genl. Agts.

The Cunard S.S. Co.
pr. Vernon H. Brown

FABRE STEAMSHIP COMPANY

Russian Volunteer Fleet

Lloyd Italiano
Prince Line, Medn Service
C. B. Richard & Co. Genl.

SICULA AMERICANA
General agents

Austro Americana SS Co
Phelps Bros & Co agts

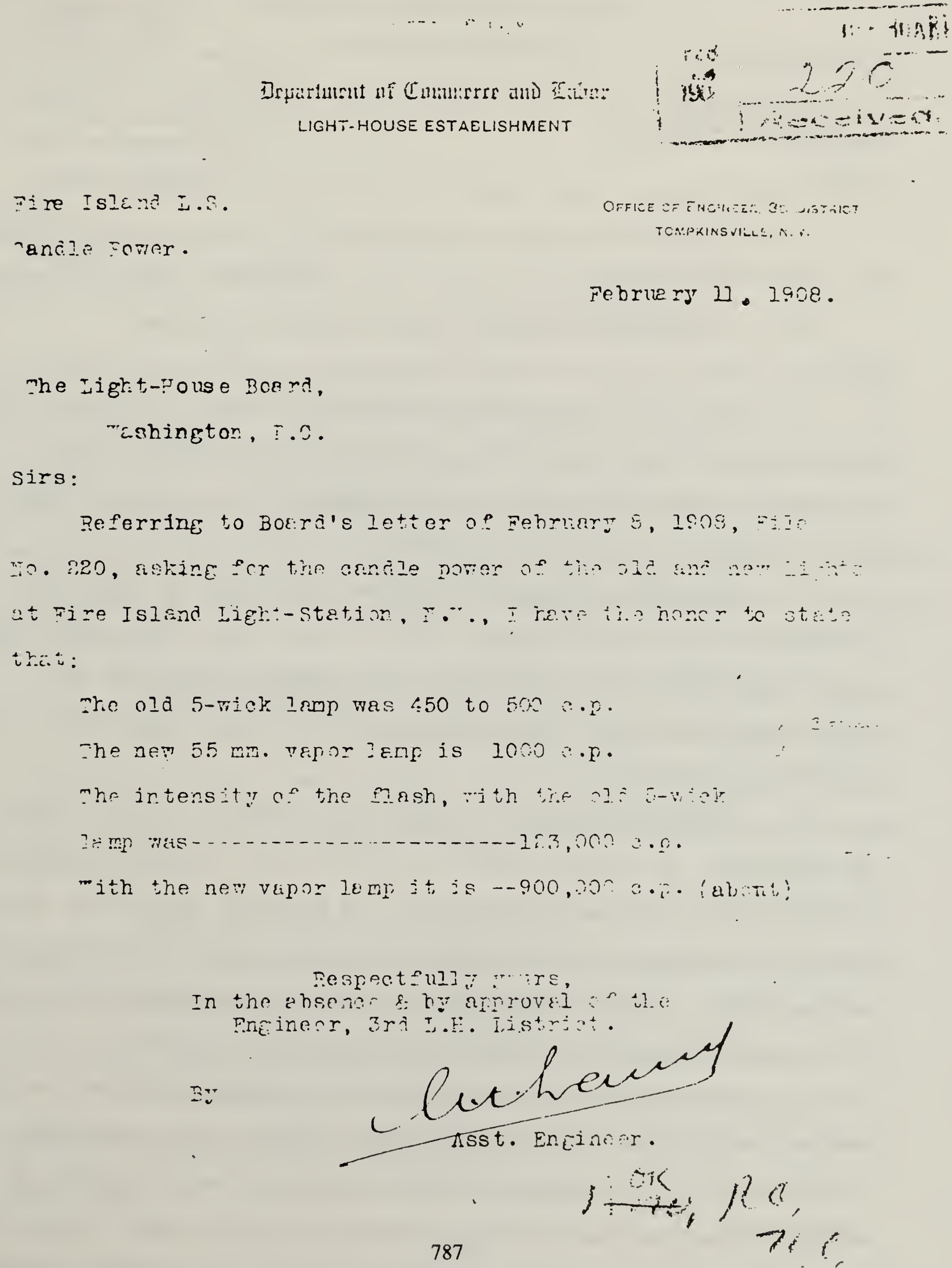
COMPAGNIE GENERALE TRANSATLANTIQUE
General Agent for U. S. and Canada.

Lamport & Holt Line.

"Navigazione Generale Italiana
"La Veloce" Societa di Navig. a Vap.
"Italia" Societa di Navigazione a vapore

General agents

Compañia Trasatlántica



L.H. BOARD
FEB 1908
220
Received

Department of Commerce and Labor
LIGHT-HOUSE ESTABLISHMENT

OFFICE OF ENGINEER, 3D DISTRICT
TOMPKINSVILLE, N.Y.

Fire Island L.S.
Candle Power.

February 11, 1908.

The Light-House Board,
Washington, D.C.

Sirs:

Referring to Board's letter of February 8, 1908, File No. 220, asking for the candle power of the old and new lights at Fire Island Light-Station, N.Y., I have the honor to state that:

The old 5-wick lamp was 450 to 500 c.p.

The new 55 mm. vapor lamp is 1000 c.p.

The intensity of the flash, with the old 5-wick lamp was------------------------123,000 c.p.

With the new vapor lamp it is --900,000 c.p. (about)

Respectfully yours,
In the absence & by approval of the
Engineer, 3rd L.H. District.

By

Asst. Engineer.

OK, RC,
7/C

Correspondence of the Light-House Board, 1901-1910
National Archives RG 26
Box 50 E48, Fire Island File #220

Received 5 Enclosures

LIGHT HOUSE BOARD
RECEIVED
[illegible]
No 220

Department of Commerce and Labor
LIGHT-HOUSE ESTABLISHMENT

JOINT REPORT.

Fire Island Light -
Increase in intensity.
5 encl.

OFFICE OF ENGINEER, 3D DISTRICT
TOMPKINSVILLE, N. Y.

June 22, 1908.

Ent'd JUN 24 1908

OK
714

The Light-House Board,
Washington, D.C.

Sirs:

Replying to the Board's letters of June 10 and June 13, 1908 (file No.220), the former containing a petition for the increase of intensity of Fire Island Light, N.Y. – we have the honor to submit the following report :

In a letter from the Engineer dated June 6, 1908, he recommended a 2nd order bivalve with a vapor lamp which would give about 2-1/2 times the intensity of the present light, but the petitioners ask for a light "equal to that of the best lights in existence elsewhere".

Another objection to the simple bivalve lens proposed by the Engineer is the fact that its characteristic would be similar to Navesink and Montauk Point and it is believed that these three important lights, either of which may be the first thing seen after a long voyage, should show something more distinguishing than the mere number of seconds interval between regular flashes.

The simplest way to do this is to make the flash double, but if that be done with the 2nd order bivalve lens recommended by the Engineer, the intensity of the flash is at once cut down to 14/12 of its present intensity, instead of 28/12 which it would have with the simple bivalve. This could be increased to about

19/12 by using a lens of two 120° panels set at an angle of 60° between their axes, which would give a c.p. of 1,135,000 with flashes at intervals of 1/6 to 5/6 of the time of revolution — (See estimate No.1).

But the use of the oil vapor lamp is out of the question if we have any idea of reaching the condition asked by the petitioners — we must go into electric lighting.

We have considered many styles of lenses, but have decided that the best combination will be the two 120° panels set at an angle of 60° between axes and revolved in 12 or 15 sec. and giving intervals of 2 sec.– 10 sec. or 2-1/2 sec.– 12-1/2 sec. We would not recommend making the short interval greater than 2-1/2 sec. lest it be confused with the 5 sec. flash of Navesink. Having determined on the style of lens, it becomes a question of the order of the lens.

The French engineers have found that the larger lenses do not produce, with the electric lights, the candle-power that theory would figure them to have, and they use a special 30 c.m. focal distance lens for the electric light — between a 3-1/2 and a 4th order lens.

There is an objection to the use of so small a lens as this at Fire Island because it is a difficult place to get to in case of a breakdown in the electric plant, and it should have a lens which will give a good light with the 5-wick oil lamp.

The 2nd order lens will cost, with electric plant complete, about $38,000 (see estimate No.2) and will give a working candle-power of probably 56 million candles.

The 3rd order will cost, with electric plant complete, about $30,000 (see estimate No.3) and will give a working candlepower of probably 48 million candles.

The electric lens (30 c.m. focal distance) will cost, with electric plant complete, about $25,000 (see estimate No.4) and will give a working candle-power of about 28 million candles.

Taking into account the fact that the French engineers have found that the larger the lens the less the electric light holds up to its theory, and the fact that the small lens will not lend itself so well to the possible substitution of the 5-wick oil lamp, we believe and recommend that Fire Island Light Station, N.Y. be supplied with an electric light placed in a 3rd order lens made up of two 120° panels placed at an angle of 60° between axes and revolved in 12 sec., giving a double flash every 12 sec.— the flash being separated by 2 sec. interval.

There are no funds available from which this work could be done and we recommend that Congress be asked to make an appropriation of $30,000 for the work.

Four estimates on form 83 are enclosed (No.3 being the one recommended) and the petition sent with the Board's letter is returned.

Very respectfully,

John A. Rodgers

Captain, U.S. Navy,
Inspector 3d L.H. District,

Chas. S. Potter

Major, Corps of Engineers, U.S.A.
Engineer 3d L.H. District.

ARB

APPENDIX C114.

LIGHT HOUSE BOARD
RECEIVED
[illegible] 1908

No. 22[illegible]

OFFICE OF THE
PRESIDENT

THE CARNEGIE FOUNDATION
FOR THE ADVANCEMENT OF TEACHING
576 FIFTH AVENUE
NEW YORK

~~Received.~~ () ~~Answered~~

July 3, 1908.

Ent'd JUL. 10 1908

Chairman, Light-House Board,

No.

Sir:

Respectfully returning herewith the papers relative to the proposed increase in intensity of the Fire Island Light, the Committee on Lighting begs to recommend:

1. In view of the importance of this light, it ought in the judgment of the committee to be of the highest efficiency;

2. The committee approves the recommendation of the joint report to the effect that the station be supplied with an electric light placed in a third order lens at the estimated cost of $30,000, and that Congress be requested to make the necessary appropriation.

Respectfully yours,

Henry S. Pritchett

Chairman.

Hold for future inspection. W.M.

Naval Secretary —

Engineer Secretary

Look into Acet & Elec. both —

The [illegible] force of Aceton-Acetylene light will probably be more reliable than electricity, less expensive and virtually as efficient Wls.

July 11, 08. Wrote Dr. Pritchett

Sept. 22 08. Wrote 3rd Inspr.

✓

Exhibit C114

The Engineer Secretary

Colonel:

Referring to the joint report dated June 22, 1908 from the Officers of the 3rd L. H. District relative to the increase in intensity of the light at Fire Island Lt. Sta., N.Y.:

(1) I respectfully suggest that the recommendation that the station be supplied with an (electric light) placed in a 3d order lens, of the kind described in the joint report, be approved: the estimate cost is $30,000.

(2) I note that no "mirror" is included in the dark angle between the two 12 lenses but have no doubt that it is intend to be included otherwise there will be a loss of 1/3 of the light from the (oven) lamp.

(3) The papers should be referred to the Committee on Lighting for consideration and report.

WHB

July 26/.

Department of Commerce and Labor
LIGHT-HOUSE ESTABLISHMENT

220.

TOMPKINSVILLE N.Y.

Joint Report.

Fire Island Light,
increase in intensity.

10 incl.

September 24, 1908.

hairman
$31,000. Electricity.
Naval Secretary
Engineer Secretary

To T.A.C. The principal objection to electricity is its occasional unreliability but we can make this installation in this case to serve as a point of reference for future work.

SEP 26 1908

The Light-House Board,

Washington, D. C.

Sirs:-

1. Replying to 1st indorsement dated September 22, 1908 (File 220) on our Joint Report of June 22, 1908 relative to the increased efficiency of Fire Island Light, we have the honor to submit the following report.

2. It is not seen how further studying can help the situation as our report of June 22, 1908 was made after a very careful consideration of the matter. It is true that consideration was not given to lighting with acetylene as that method of lighting was entirely out of the question.

3. The conditions asked for by the petitioners absolutely preclude the consideration of acetylene. Acetylene in the largest grouping now used gives a claimed candle power of about 500 with a large divergence. The vapor lamp gives 1000 c.p. with much less divergence. The installation mentioned in the 4th par. of our report (estimate No. 1) will give many times more intensity than can possibly be gotten from any acetylene combination and will cost about 1.1 cts. per hour for oil, while the

Sept. 28, 08. Chairman wrote 3rd O.O.

acetylene combination would cost 23¢ per hour for gas.

4. The intensity of the flash is inversely proportional to the divergence. The divergence is probably twice as much with the group of 17 burners put up by the Swedish firm, from whom we have recently purchased such a group, as would be the divergence of the 55 m.m. vapor lamp. The group has only 1/2 the candle power. Therefore the intensity of the flash would be only 1/4 that which would be given by the installation provided for in our estimate No. 1, or 284,000 against 1,135,000 c.p.

5. The outfit for such an installation would certainly cost $1000 as against $200 for the oil vapor outfit or increase estimate No. 1 to $16800.

Outfit	Installing	Intensity	Cost per hr.	Cost 1000 c.p.hour
Acetylene	$16800.00	284,000	23¢	.08098¢
Vapor	$16000.00	1,135.000	1.1¢	.00097¢

Therefore acetylene cannot compete with the vapor lamp in economy or efficiency.

6. But the vapor lamp does not give anything like what the petitioners want and therefore we did not recommend it.

7. The electric plant recommended will cost $30,000.00 and will give a flash of 48,000,000 which we believe is what is wanted. The cost of maintenance of this plant would figure about the same as the acetylene plant discussed above with an intensity of 48 millions as compared with 284,000 or an intensity of 170 times as great at equal cost of maintenance.

8. We assume that we are to report on the comments and would therefore state that we believe the Board will make a mistake in recommending Estimate 4 as voted by the Chairman, as this is for an electric lens which will not take an oil lamp in case of a breakdown.

Referring to the remarks by H.H.B. in regard to mirror, it may be stated that the 1/3 loss is reduced to 1/6 by the fact that only 120° reflect while 240° are direct. This 1/6 will be largely lost by the mechanism of the electric light which will shut it off and it is not believed that its cost over that of asbestos curtains with free access to the light will be warranted.

9. We do not feel that further study will avail anything. If we are to go into a light such as asked for (48 million c.p.) it must be done by electric lighting and nothing can take its place. If we are to be satisfied with an ordinary light (1-1/4 million c.p.) estimate No. 1 will cover it in the most economical manner as to installation and maintenance. Acetylene cannot compete with the vapor lamp for ordinary intensities and nothing can compete with electricity for high power.

The papers are returned herewith.

Very respectfully,
C. Thomas.
Captain, U.S. Navy,
Inspector, 3rd L.H. District.

Chas. L. Potter
Major, Corps of Engineers, U.S.A.,
Engineer 3rd L.H. District.

APPENDIX C114.

Department of Commerce and Labor
LIGHT-HOUSE ESTABLISHMENT

LIGHT HOUSE BOARD
RECEIVED
SEP 30 1908
No.

OFFICE OF ENGINEER, 3D DISTRICT
TOMPKINSVILLE, N. Y.

Fire Island Light,
intensity.

September 29, 1908.

The Chairman
Light-House Board,
Washington, D. C.

Sir:-

Replying to your letter of September 28, 1908, (File 220) relative to remarks in regard to increasing intensity of the Fire Island Light, I would say that the entire responsibility for those remarks rests with me and not with the Inspector, as I wrote the report.

It is an unusual thing for the Board to send us the vote of the Executive Officers and I could only assume that it was for a purpose, to show us how they had voted and for us to consider those votes. We could not refer to paragraphs as it was not in the report but on a separate slip.

We had four estimates with our original report -- the third, which we recommended, was for $30,000 and the 4th, which we did not recommend, was for $25,000.

Unless I read the vote wrong, the Chairman voted "Ask Congress for $25,000" or words to that effect and

Ack. [illegible] Chairman [illegible]

the other Executive Officers voted to study the question of acetylene. I had shown that acetylene was out of the question and did not wish to have the Board make a request for estimate No. 4 (and I could only assume that the Chairman's vote for $25,000 meant a vote for that estimate) as the apparatus allowed for in that estimate would be, in my opinion, a bad one to put in for the reasons stated.

In short the vote was sent us and it was assumed that we were to take cognizance of the same and the most natural method of referring to them was by the name of their office. No personal names were used and no personal criticism was intended.

Very respectfully,

Chas. L. Potter

Major, Corps of Engineers, U.S.A.,

Engineer 3rd L.H. District.

APPENDIX C115.

61
401

4441

~~401~~

90

90

Third

Tompkinsville, N. Y.

Oct. 8 09.

Major Charles L. Potter, U. S. A.,

Third

Tompkinsville, N. Y.

needed

Fire Island

September 8, 1909.

When unpacked , the tops and bails of 12 mantles were found broken, 10 in one box. The sleeve around vaporizer nozzle burning out in service burner. Coal shed should be repaired just before next supplies are furnished. Kitchen pumps and sinks should be furnished both assistant Keepers.

Captain

Third

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 8

77

~~44~~

DS

File. No. 61

Sept. 25, 1909.

Ezra S. Mott, Keeper,
Fire Island Light-Station,
Bayshore, L. I., N. Y.

Sir:-

Inclosed herewith is your Annual Property Return on which you failed to take up the following articles in column "received":-

1 Sail
1 Mast
1 Boom
1 Gaff
1 set lids, centers and oven door for range
12½ lbs. Zinc
½ gal. Green paint
⅛ bbl. Cement
2 Coal hods
1 gal. Copal varnish
4 Shades for tubular lamp

You expend the following for which there is no receipt:-

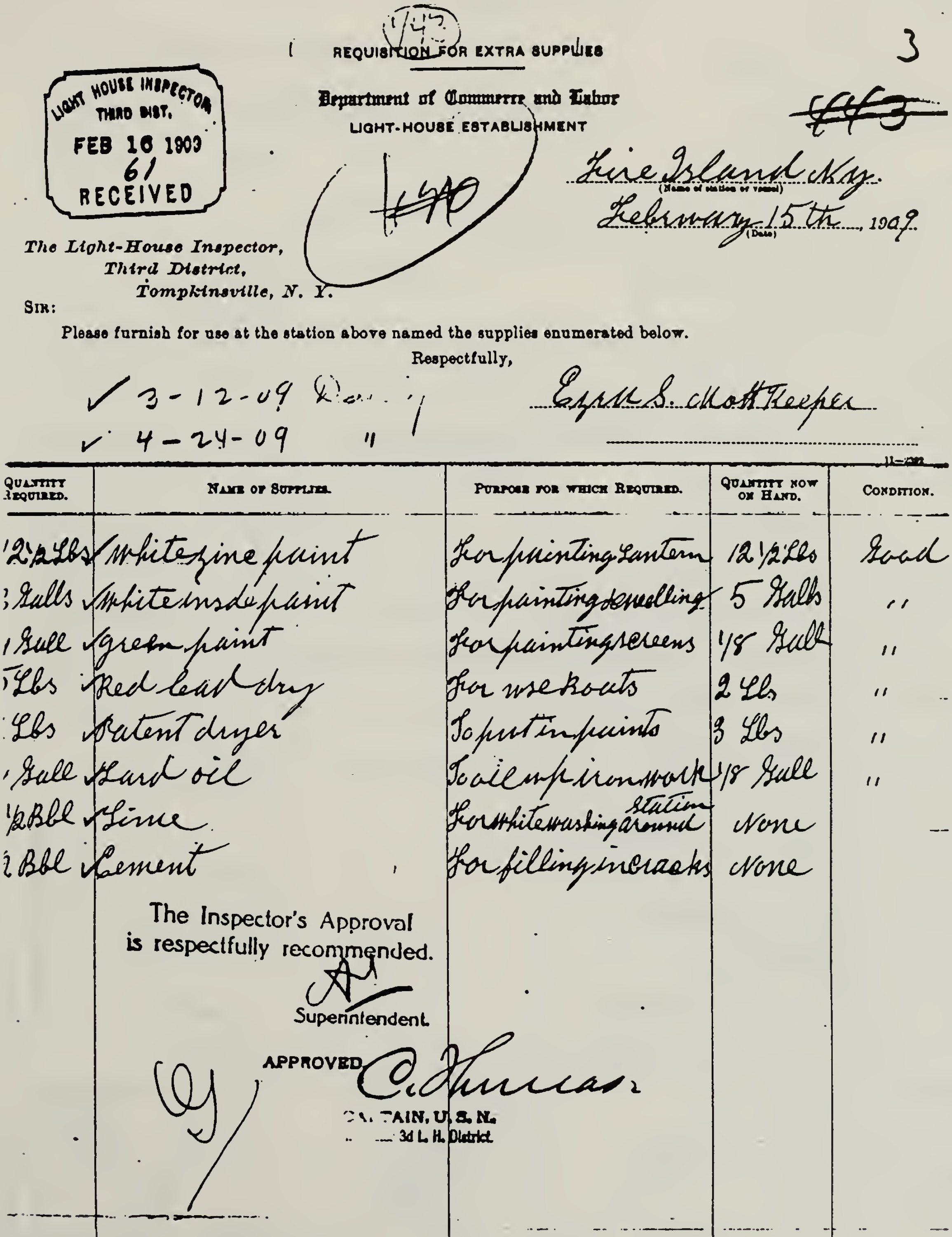
24 Cleaning brushes
2 Batteries
1 Nail hammer
2 Air pressure pumps

Please state what disposition was made of the above articles, correct your mineral oil account (see pencil figures), and return the enclosed form to this office as soon as possible.

Respectfully,

Captain, U.S.Navy, Inspector.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 8



1/42

3

REQUISITION FOR EXTRA SUPPLIES

Department of Commerce and Labor

LIGHT-HOUSE ESTABLISHMENT

~~643~~

~~1440~~

LIGHT HOUSE INSPECTOR
THIRD DIST.
FEB 16 1909
61
RECEIVED

Fire Island N.Y.
(Name of station or vessel)

February 15th 1909.
(Date)

The Light-House Inspector,
Third District,
Tompkinsville, N. Y.

SIR:

Please furnish for use at the station above named the supplies enumerated below.

Respectfully,

Ezra S. Mott Keeper

✓ 3-12-09 D.

✓ 4-24-09 "

QUANTITY REQUIRED.	NAME OF SUPPLIES.	PURPOSE FOR WHICH REQUIRED.	QUANTITY NOW ON HAND.	CONDITION.
12½ Lbs	White zinc paint	For painting Lantern	12½ Lbs	Good
3 Galls	White inside paint	For painting dwelling	5 Galls	"
1 Gall	Green paint	For painting screens	1/8 Gall	"
5 Lbs	Red lead dry	For use boats	2 Lbs	"
Lbs	Patent dryer	To put in paints	3 Lbs	"
1 Gall	Hard oil	To oil up iron work	1/8 Gall	"
½ Bbl	Lime	For whitewashing around station	None	
1 Bbl	Cement	For filling in cracks	None	

The Inspector's Approval
is respectfully recommended.

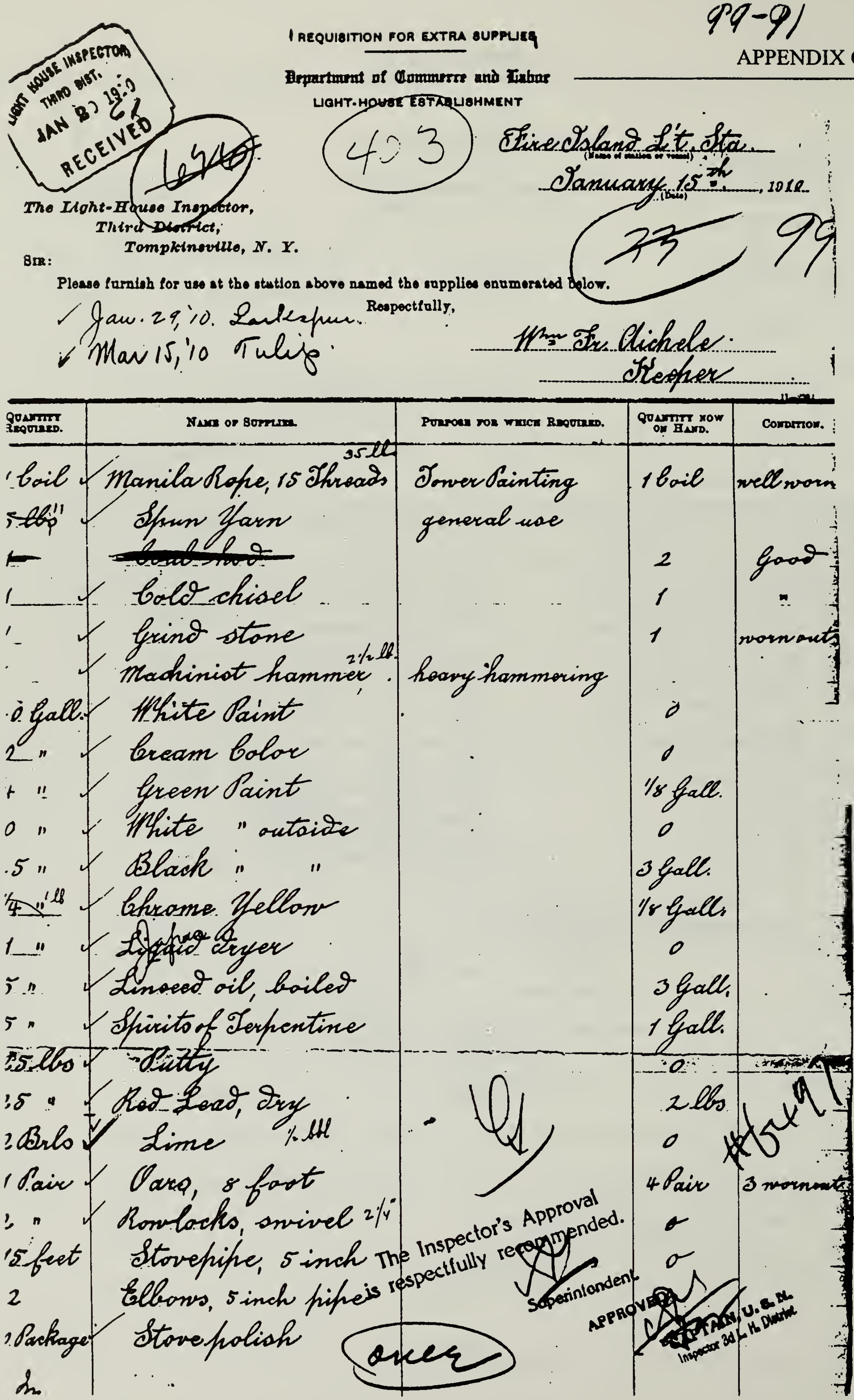
Superintendent.

APPROVED C. Thomas
CAPTAIN, U. S. N.
3d L. H. District.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 8

99-91

APPENDIX C118.



LIGHT HOUSE INSPECTOR THIRD DIST. JAN 20 1910 RECEIVED

~~6710~~

403

REQUISITION FOR EXTRA SUPPLIES

Department of Commerce and Labor
LIGHT-HOUSE ESTABLISHMENT

Fire Island L't. Sta.
(Name of station or vessel)

January 15th, 1910
(Date)

~~73~~ 99

The Light-House Inspector,
Third District,
Tompkinsville, N. Y.

Sir:

Please furnish for use at the station above named the supplies enumerated below.

Respectfully,

Wm Fr. Aichele
Keeper

✓ Jan. 29, '10. Larkspur.
✓ Mar 15, '10 Tulip

Quantity Required.	Name of Supplies.	Purpose for which Required.	Quantity now on Hand.	Condition.
Coil	✓ Manila Rope, 15 Threads 35 lb	Tower Painting	1 Coil	well worn
5 ~~lbs~~ "	✓ Spun Yarn	general use		
	~~Coal Hod~~		2	Good
1	✓ Cold chisel		1	"
1	✓ Grind stone		1	worn out
	✓ Machinist hammer 2½ lb.	heavy hammering		
0 Gall.	✓ White Paint		0	
2 "	✓ Cream Color		0	
"	✓ Green Paint		1/8 Gall.	
0 "	✓ White " outside		0	
5 "	✓ Black " "		3 Gall.	
~~4~~ " 1 lb	✓ Chrome Yellow		1/8 Gall.	
1 "	✓ ~~Liquid~~ Japan dryer		0	
5 "	✓ Linseed oil, boiled		3 Gall.	
5 "	✓ Spirits of Terpentine		1 Gall.	
5 lbs	✓ Putty		0	
5 "	✓ Red Lead, dry		2 lbs	
2 Brls	✓ Lime ½ bbl		0	
1 Pair	✓ Oars, 8 foot		4 Pair	3 worn out
2 "	✓ Rowlocks, swivel 2¼"		0	
15 feet	Stovepipe, 5 inch		0	
2	Elbows, 5 inch pipe			
1 Package	✓ Stove polish			

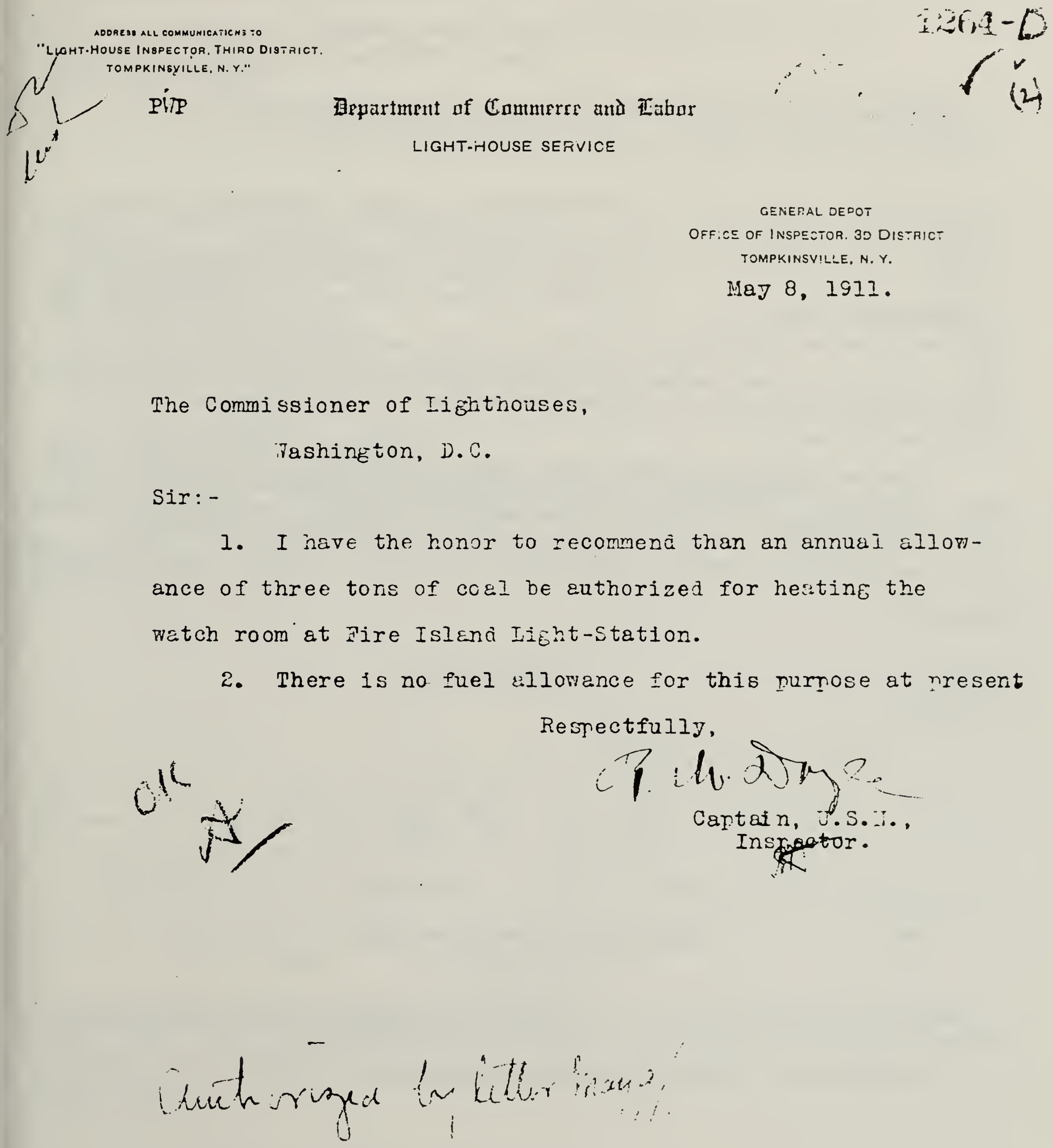
#5497

The Inspector's Approval is respectfully recommended.
Superintendent

APPROVED:
CAPTAIN, U. S. N.
Inspector 3d L. H. District

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 8

APPENDIX C119.



1264-D

(2)

ADDRESS ALL COMMUNICATIONS TO
"LIGHT-HOUSE INSPECTOR, THIRD DISTRICT,
TOMPKINSVILLE, N. Y."

PWP

Department of Commerce and Labor

LIGHT-HOUSE SERVICE

GENERAL DEPOT
OFFICE OF INSPECTOR, 3D DISTRICT
TOMPKINSVILLE, N. Y.

May 8, 1911.

The Commissioner of Lighthouses,
Washington, D.C.

Sir:-

1. I have the honor to recommend than an annual allowance of three tons of coal be authorized for heating the watch room at Fire Island Light-Station.

2. There is no fuel allowance for this purpose at present

Respectfully,

R. M. Doyle

Captain, U.S.N.,
Inspector.

OK

Authorized by letter [illegible]

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50, File 1264-D

OFFICE OF LIGHTHOUSE INSPECTOR. Third DISTRICT.
Tompkinsville, N.Y., May 29th, 1911

THE COMMISSIONER OF LIGHTHOUSES:

The following recommendations are submitted for the consideration of the Bureau:

1. Name of aid and locality: Fire Island Light-station, N.Y.
2. Proposed work: * See below.
3. Appropriation: Repairs of Lighthouses,1911,-Funds heretofore allotted.
4. Estimated cost: $1589.42
5. Authority is also requested to purchase the material needed, and not now on hand, at an estimated cost of $, in accordance with law and regulations, and to do the work by Permanent force - , this method of performance being considered the cheapest and most advantageous to the Service.
6. The reasons for requesting authority to do this work by hired labor rather than by contract are:

   It is the more economical and advantageous, as material and facilities for transportation are in hand and workmen available.
7. Additional information:

   * General repairs to dwelling: Reshingling roof, new gutters and leaders, laying new and repairing and strengthening old floors, furnishing and fitting storm sash to windows, new doors to cellar of dwelling; new doors and repairs to outhouses; new door to watchroom of tower; repairs to plankwalk, railway tract, etc.,etc.

Why not use asbestos
shingles etc
JSC 5/31

R. M. Doyle
Captain, U.S.N., Inspector.

WHM

Department of Commerce and Labor
BUREAU OF LIGHTHOUSES May 31, 1911.
Washington.

Returned to the Inspector, authorized as requested, except as noted.x You will proceed with the work and report its status, until completed, in your Monthly Report of Operations.

x The Bureau is of opinion that asbestos shingles should be used.

Commissioner.
JSC

11—4066

PROPOSED WORK: Repairs to dwelling, outhouses, tower, plankwalk, Ry. tract. etc.

Tompkinsville, N.Y., May 29th, 1911. 191

ITEMS, QUANTITIES, AND UNIT PRICES	AMOUNT
1715 ft. Asstd. Spruce lumber, per M.,	$ 44.59
60 ft. B. M. 1-1/4 x 3" flooring, per M.,	2.10
6 Batten doors complete,	32.52
28 storm sash	125.00
175 bundles shingles,	210.00
71 pounds sheet copper,	41.04
80 ft. 4" Copper leader	24.00
12 Elbows,	7.20
3 check valves, 1¼"	5.10
3 bags Charcoal,	.90
387 pounds Nails, assorted,	11.61
Asstd. hardware: Hinges, 1.40; latches, 1.00; screws, 1.60; tacks, 60¢; solder, 1.27;	5.87
Labor,	705.00
Subsistence,	210.00
Travel, etc.,	20.00
	$1444.93
Contingencies,	144.49
	$1589.42

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264

Estimate prepared by

April 9, 1912.

Inspector.

Enclosures

Pursuant to your orders, I proceeded to Fire Island Light Station on April 3, 1912 for the purpose of investigating the conditions of the tower, and have to report as follows:

The tower is built of brick and is 159' 10" to the floor of the lens room. The walls are 1' 7½" thick at the top, 10' 2½" thick at the bottom, and the stair well is 10' 6" in diameter. The tower is painted on the outside and white-washed on the inside.

The surface of the brick and mortar patches on the outside spalls off, carrying the paint with it. Some of the pieces that fall off are as large as 18 inches in diameter and 2" thick. During the last few months cracks have developed in the upper part of the tower and show on the inside. There is a horizontal wind crack which extends half way around the tower on the north side at an elevation of 130 feet above the ground; a vertical crack on the south-west side at an elevation of 120' and a vertical crack on the south-east side 12' long and one 13' long on the north side, both at an elevation of 103 feet.

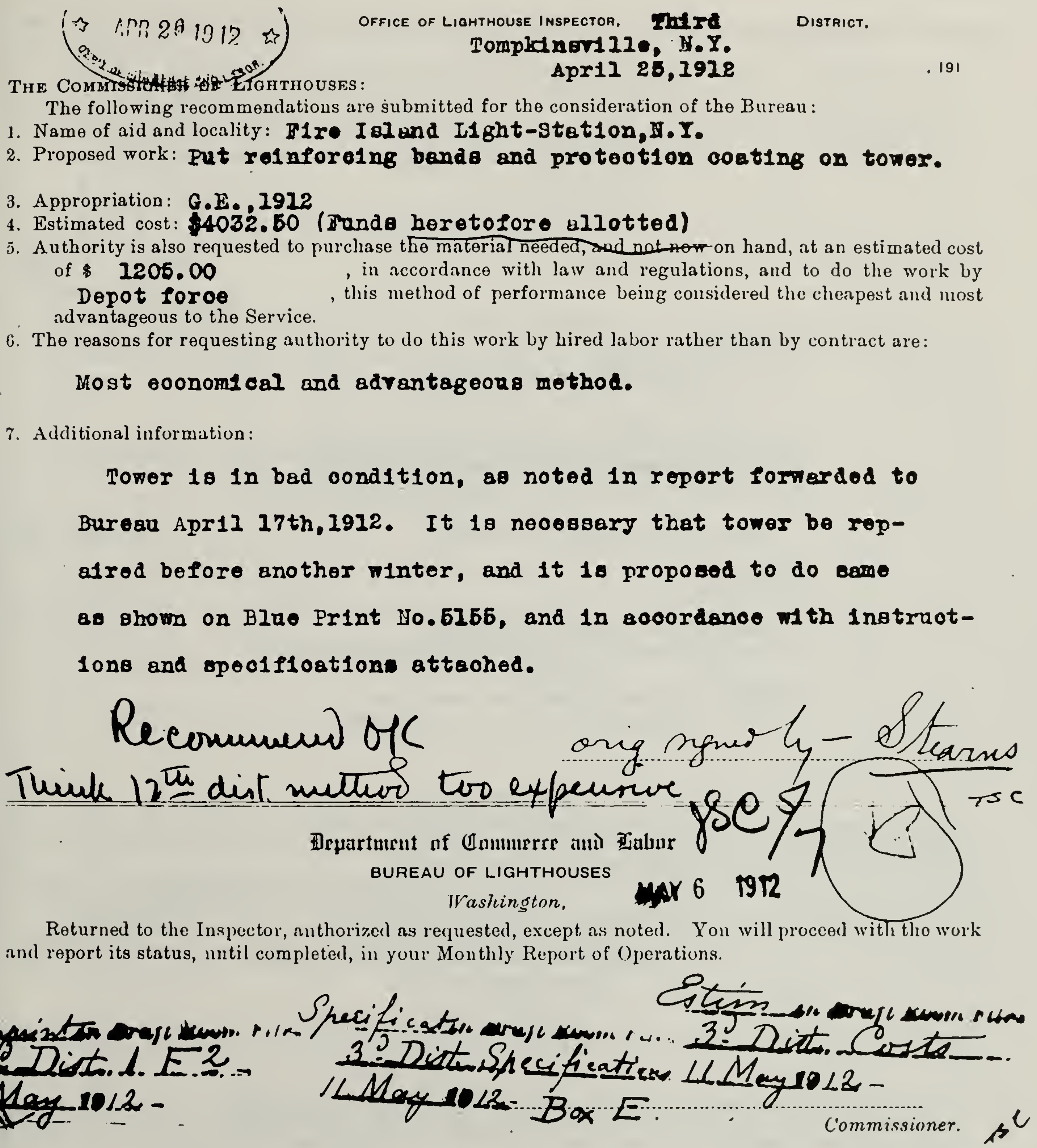
The tower sways considerably in a strong wind.

(signed) Hingsburg.

Assistant Superintendent.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-A

APPENDIX C122.



APR 26 1912

OFFICE OF LIGHTHOUSE INSPECTOR, **Third** DISTRICT,
Tompkinsville, N.Y.
April 25,1912 . 191

THE COMMISSIONER OF LIGHTHOUSES:

The following recommendations are submitted for the consideration of the Bureau:

1. Name of aid and locality: **Fire Island Light-Station,N.Y.**
2. Proposed work: **Put reinforcing bands and protection coating on tower.**
3. Appropriation: **G.E.,1912**
4. Estimated cost: **$4032.50 (Funds heretofore allotted)**
5. Authority is also requested to purchase the material needed, ~~and not now~~ on hand, at an estimated cost of $ **1205.00**, in accordance with law and regulations, and to do the work by **Depot force**, this method of performance being considered the cheapest and most advantageous to the Service.
6. The reasons for requesting authority to do this work by hired labor rather than by contract are:

   Most economical and advantageous method.

7. Additional information:

   Tower is in bad condition, as noted in report forwarded to Bureau April 17th,1912. It is necessary that tower be repaired before another winter, and it is proposed to do same as shown on Blue Print No.5155, and in accordance with instructions and specifications attached.

Recommend O/C

orig signed by — Stearns

Think 12th dist. method too expensive

JSC

TSC

Department of Commerce and Labor
BUREAU OF LIGHTHOUSES
Washington, MAY 6 1912

Returned to the Inspector, authorized as requested, except as noted. You will proceed with the work and report its status, until completed, in your Monthly Report of Operations.

lueprint [illegible]
3d Dist. 1. E.2 —
May 1912 —

Specification [illegible]
3d Dist. Specification
11 May 1912 — Box E.

Estim [illegible]
3d Dist. Costs —
11 May 1912 —

Commissioner.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264

Office of Lighthouse Inspector, Third District, Tompkinsville, N. Y. May 1, 1912, 191

Sealed proposals, subject to the conditions hereon, will be received at this office until 3 o'clock p m., May 8, 1912, 191 , for furnishing and delivering to Lighthouse Depot, Tompkinsville, New York, the articles or services specified in accompanying schedule, within days from date of order therefor.

Inspector

ADDRESS ALL COMMUNICATIONS TO
LIGHTHOUSE INSPECTOR, THIRD DISTRICT
TOMPKINSVILLE, N.Y.

SCHEDULE

QUANTITY WANTED	UNIT OF MEASURE	DESCRIPTION OF ARTICLES OR SERVICES	NET PRICE PER UNIT	NET PRICE FOR ITEM
			per sq ft.	
250	sheets	Expanded Metal Reinforcing,		
		As per specifications attached.		
		Right is reserved to require the delivery of an additional amount under this proposal on or before June 30th, 1912.		
		Sheets 10'6" long by 6' wide,	3.6	567 00
		ALTERNATE		
		Sheets 10'8" long by 6' wide,	3.55	559 12
		Above quotation f.o.b. cars Tompkinsville, N. Y.		
		SHIPMENT; Not later than one week from receipt of order at Youngstown.		

PROPOSAL

In compliance with the above advertisement, the undersigned propose , within 30 days from date of order therefor, to furnish the articles or services bid upon in the accompanying schedule, at the prices set opposite each item, subject to the conditions hereon.

Date, May 4, 1912. 191 Signature The General Fireproofing Co., Bidder.

P. O. Address, Youngstown, Ohio.

ACCEPTANCE

To —Bidder.

Deliver articles to

Under above advertisement and proposal, your bid is accepted.

Please deliver at the place given above, all charges prepaid, subject to the conditions hereon, the articles or services specified in the accompanying schedule, at the prices and within the time named in your proposal.

Place and date,

11—4061

11—4066

JC 909.

The Commissioner of Lighthouses:

Authority is requested to purchase, at the prices stated, the articles or services named below, by Method B, printed hereunder, as provided for in section 8 of the act of June 17, 1910. The original bids received are inclosed herewith.

Proposals were sent to 6 dealers, and public notices were duly posted.

A copy of the bid recommended for acceptance, with specifications, plans, etc., and abstract of the bids received, is attached hereto for the files of the Bureau.

The price is considered reasonable, not in excess of current market rates, and advantageous to the Government.

Payment is to be made as shown below. The return of the original bids, etc., is requested.

N[illegible] 1912

[illegible]

METHOD OF PURCHASE.

A. Under contract with bond, after obtaining competitive proposals following public advertisement.
B. Under contract, without security, after obtaining competitive proposals following public advertisement by posters and circular letters.
C. In the open market, after obtaining prices and making verbal agreement, without obtaining competitive bids after public advertisement, immediate delivery being required by an exigency of the service.

QUANTITY	PURPOSE AND DESCRIPTION OF ARTICLES OR SERVICES	ESTIMATED COST	
		DOLLARS	CENTS
250 sheets	Expanded Metal Reinforcing, for Fire Island Light Station, 3rd District.	559	12
	Rcd [illegible] : his estimate is [illegible] @ $4.[illegible] HBT May 28		

TO BE PAID FROM FUNDS:	APPROPRIATION
Allotted. ✓	General Expenses, Lighthouse Service, 1912.

C-WM
4 inclosures.

Department of Commerce and Labor
BUREAU OF LIGHTHOUSES
WASHINGTON

May 29, 1912.

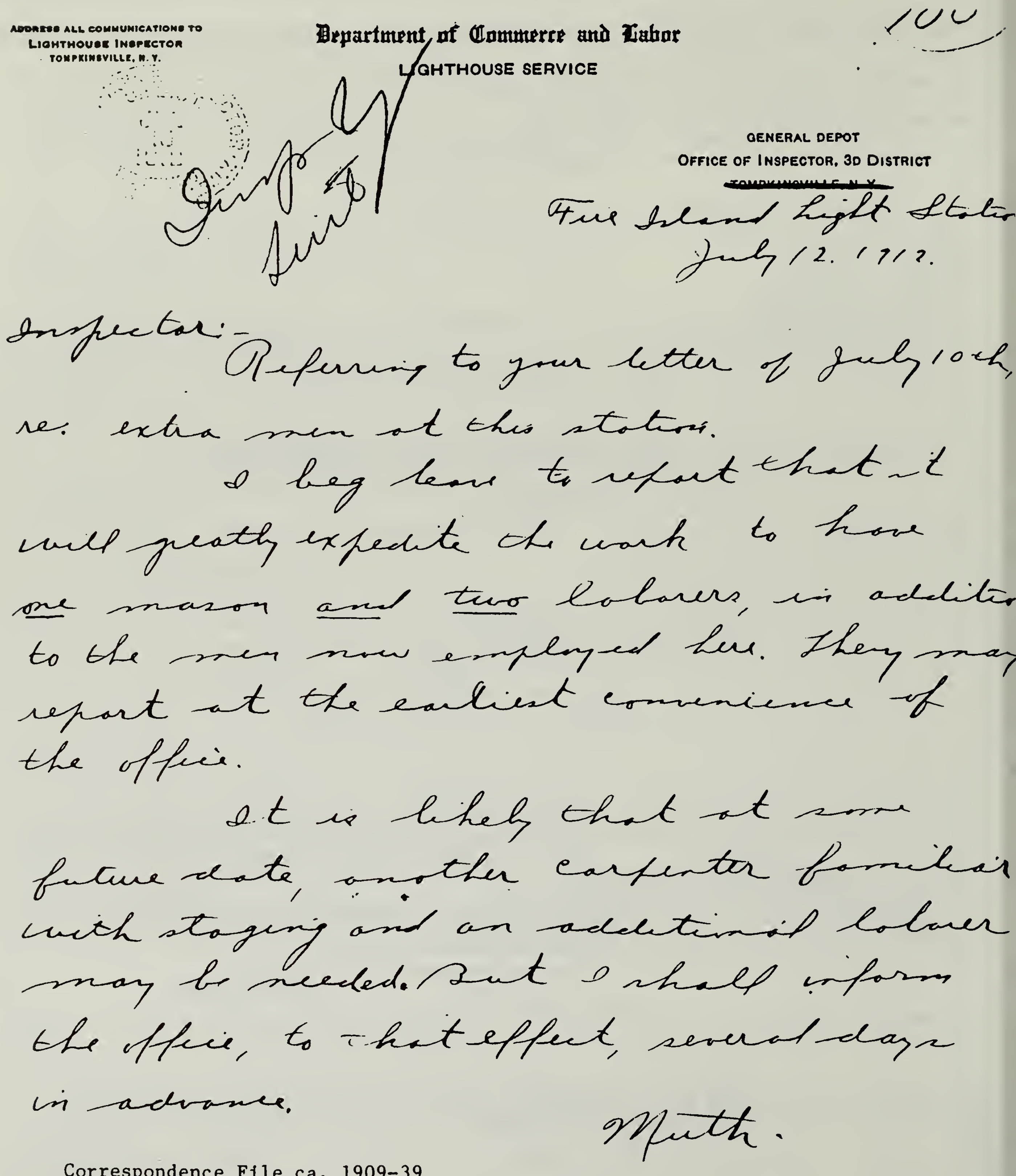
Returned to the Inspector, with authority to purchase by the method requested and at the terms and prices stated. Payment to be made as shown above.

Bids filed in E. O. Div.
3d Dist. Costs
Date 11 Dec. 1912.

Conover
Act. Commissioner.

11—962

11—4066



ADDRESS ALL COMMUNICATIONS TO
LIGHTHOUSE INSPECTOR
TOMPKINSVILLE, N. Y.

Department of Commerce and Labor
LIGHTHOUSE SERVICE

GENERAL DEPOT
OFFICE OF INSPECTOR, 3D DISTRICT
~~TOMPKINSVILLE, N. Y.~~

100

Supply Sup't

Fire Island Light Statio
July 12. 1912.

Inspector:-
Referring to your letter of July 10th, re: extra men at this station.

I beg leave to report that it will greatly expedite the work to have one mason and two laborers, in additio to the men now employed here. They may report at the earliest convenience of the office.

It is likely that at some future date, another carpenter familiar with staging and an additional laborer may be needed. But I shall inform the office, to that effect, several days in advance.

Muth.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 64

-FHF

(608)

August 7th, 1912

Frank A. Muth, Aid, L. H. S.,

c/o Keeper Fire Island Light Station.

Referring to weekly report of August 3rd relative to completion of work about November 1st. It will be impracticable to work at this station so late in the fall, and it is desired to complete the work at an earlier date. Additional men will be furnished to expedite this work, and you will please forward to this office a list showing the number of men desired.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 64

Report Of Work, Fire Is. LT. Sta.

Up to Sept. 10, 1912.

Inspector:–

Sept. 11. 1912

Date	Height	Area Sq. Ft.	Area % plastered
July 31	Begun plastering.		
Aug 2	5'-5"	completed	
" 6	13'-7"		
" 16	21'-5"	1982	22 %
" 24	29'-6"	2596	28 %
" 28	35'-9	2941	32.7 %
Sept. 10	42'-0"	3530	39.3 %

Of all the work done about 50% is done; this includes staging, chipping and staging cut and ready.

Note: Total height 139'-8."

Total area 8998. sq ft.

Remarks:– Up until Aug 6, the chipping was done by using two air hammers and the hand hammers. Then three air hammers were put on. Now we can use four if we had other laborers.

Up until the 16th of August all hands had to chip, after ~~to~~ each band of cement was finished. Now the masons can plaster without interruption, for the chippers can keep ahead of the masons, with their present start.

After Aug. 28, the work of plastering was delayed, as is seen, by the facts of a holiday the death of one mason, and only one mason on the job. A little more than a days work has dropped off, due to the rain making the cement plaster "run". The rain come up suddenly on the finish coat and washed it off before it "set," the day being very foggy and thick. This happened twice last week, with about a half days work each time. It has all been straightened up though, and the work is all moving systematically.

To expedite work two masons will be required and two laborers as soon as possible.

Muth.

Correspondence File ca. 1909-39
Records of the Third Light-House District
National Archives RG 26
Box 64

APPENDIX C126.

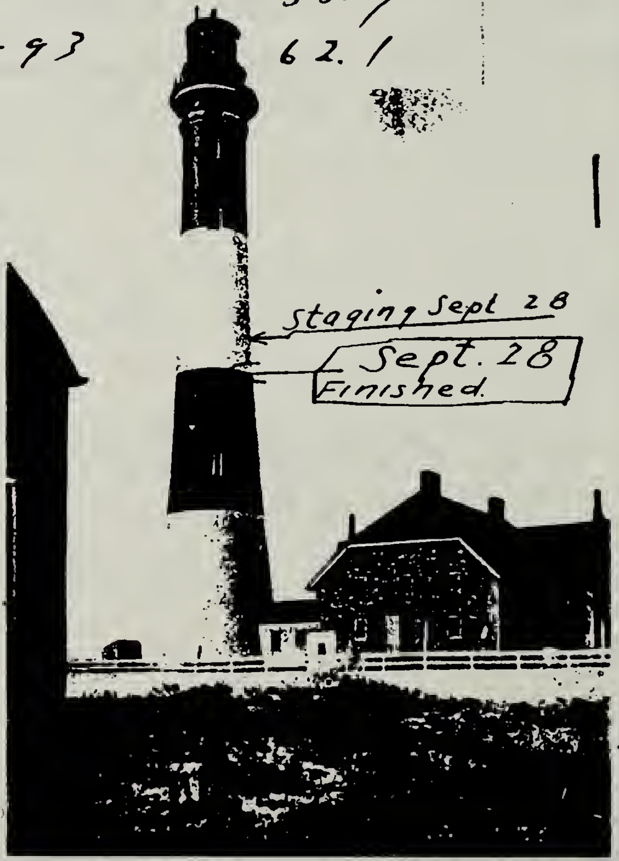
OCT

Progress Painting
Fire Island Lt. Station

Y

Sept. 29 1912.

Date	Height.	Area	Area %
July 31	0		
Aug 2	5' - 5"		
" 6	13' - 7"		
" 16	22' - 5"	1982	22
" 24	29' - 6"	2576	28
" 28	35' - 9	2941	32.7
Sept. 10	42' - 0"	3530	39.3
" 16	48' - 6"	4038	44.1
" 20	55' - 6"	4534	50.3
" 24	62' - 0"	5016	55.7
" 28	68' - 0"	5593	62.1


Staging Sept 28
Sept. 28 Finished.

Correspondence File ca. 1909-39
626 Aids to Navigation &
601 Operations
Records of the Third Light-
House District
National Archives RG 26
Box 64

FWO-FHP

October 14, 1912

Frank A. Muth, Aid,

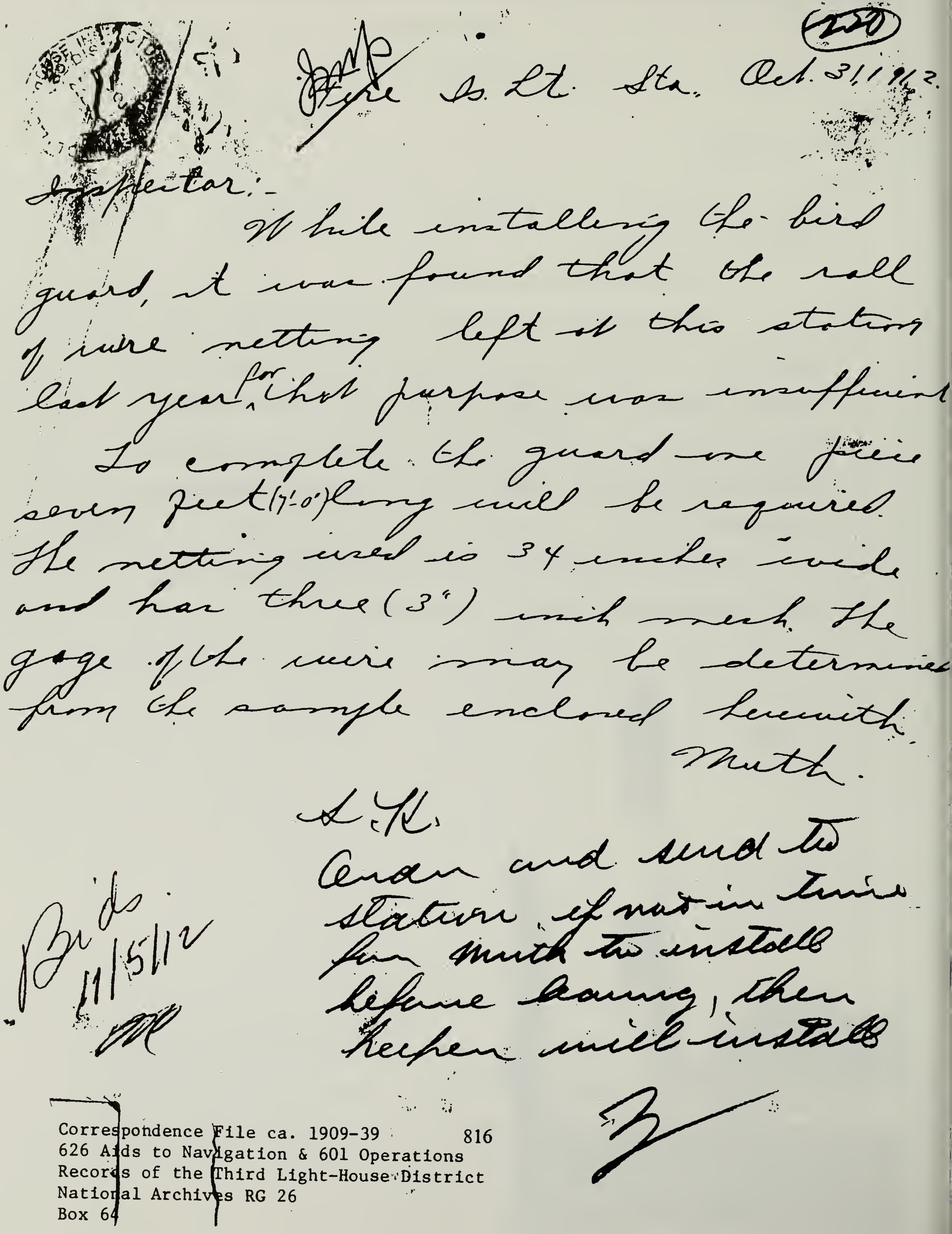
c/o Keeper, Fire Island L. S.

Referring to your letter of October 11th, 1912 requesting information as to the approximate cost of the present repairs to the tower at the Fire Island Light Station, also as to the contract price of some 15000 feet of spruce lumber bought of E. S. Baily of Patchogue last June.

You are directed to get this information from the time keeper when work is completed.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 64

APPENDIX C128.



120

Fire Is. Lt. Sta. Oct. 31, 1912.

Inspector:-

While installing the bird guard, it was found that the roll of wire netting left at this station last year for that purpose was insufficient.

To complete the guard one piece seven feet (7'-0") long will be required. The netting used is 34 inches wide and has three (3") inch mesh. The gage of the wire may be determined from the sample enclosed herewith.

Muth.

A.K.
Order and send to station if not in time for Muth to install before leaving, then keeper will install

Bids
11/5/12

Correspondence File ca. 1909-39 816
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 64

601

APPENDIX C129.

LIGHT-HOUSE INSPECTOR 3d DIST.
NOV 12 1912
RECEIVED
TOMPKINSVILLE, N.Y.

Department of Commerce and Labor

Fire Is. Lt. Sta., Nov. 9. 1912.

Inspector:-

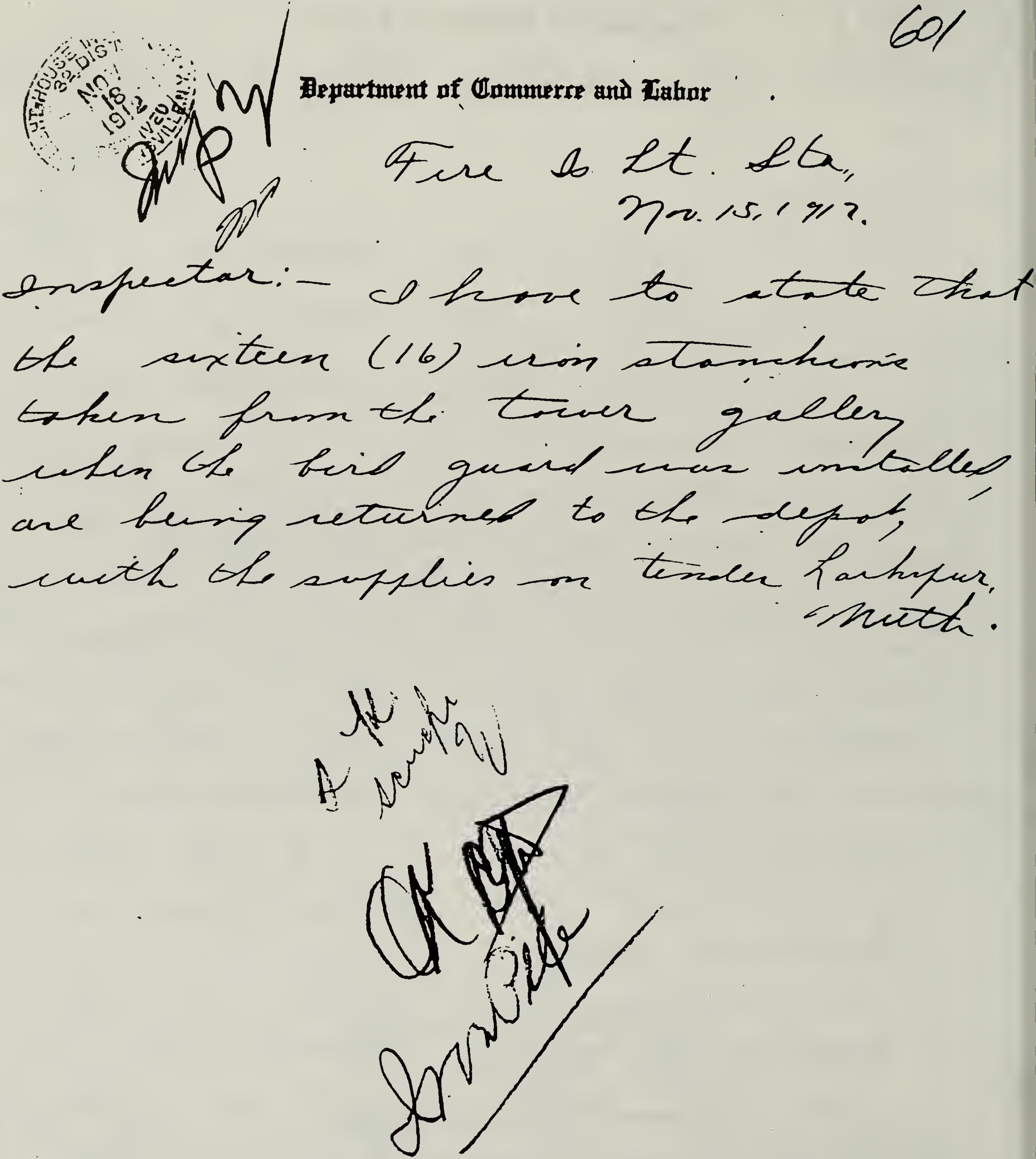
I have to state that from present conditions, the staging will all have been taken down on Thursday Nov. 14.

For the information of the office, I have to report that the following materials will be ready for the tender, in addition to the lumber from the staging:- 12 bbls cement, oil engine and compressor outfit, camp outfit and bedding, 80 pcs 2"x3"x20 ft Spruce (unused) and 22 pc's expanded metal mesh.

At present there are five workmen in camp besides the cook.

The office will be definitely informed just what day the staging will be ready for the Tender.

Muth.



601

LIGHT-HOUSE 3D DIST. NOV 18 1912 RECEIVED VILLE, N.Y.

Department of Commerce and Labor

Fire Is. Lt. Sta.,
Nov. 15, 1912.

Inspector:- I have to state that the sixteen (16) iron stanchions taken from the tower gallery when the bird guard was installed are being returned to the depot, with the supplies on tender Larkspur.

Smith.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 64

APPENDIX C131.

500

ASK.

December 12, 1912.

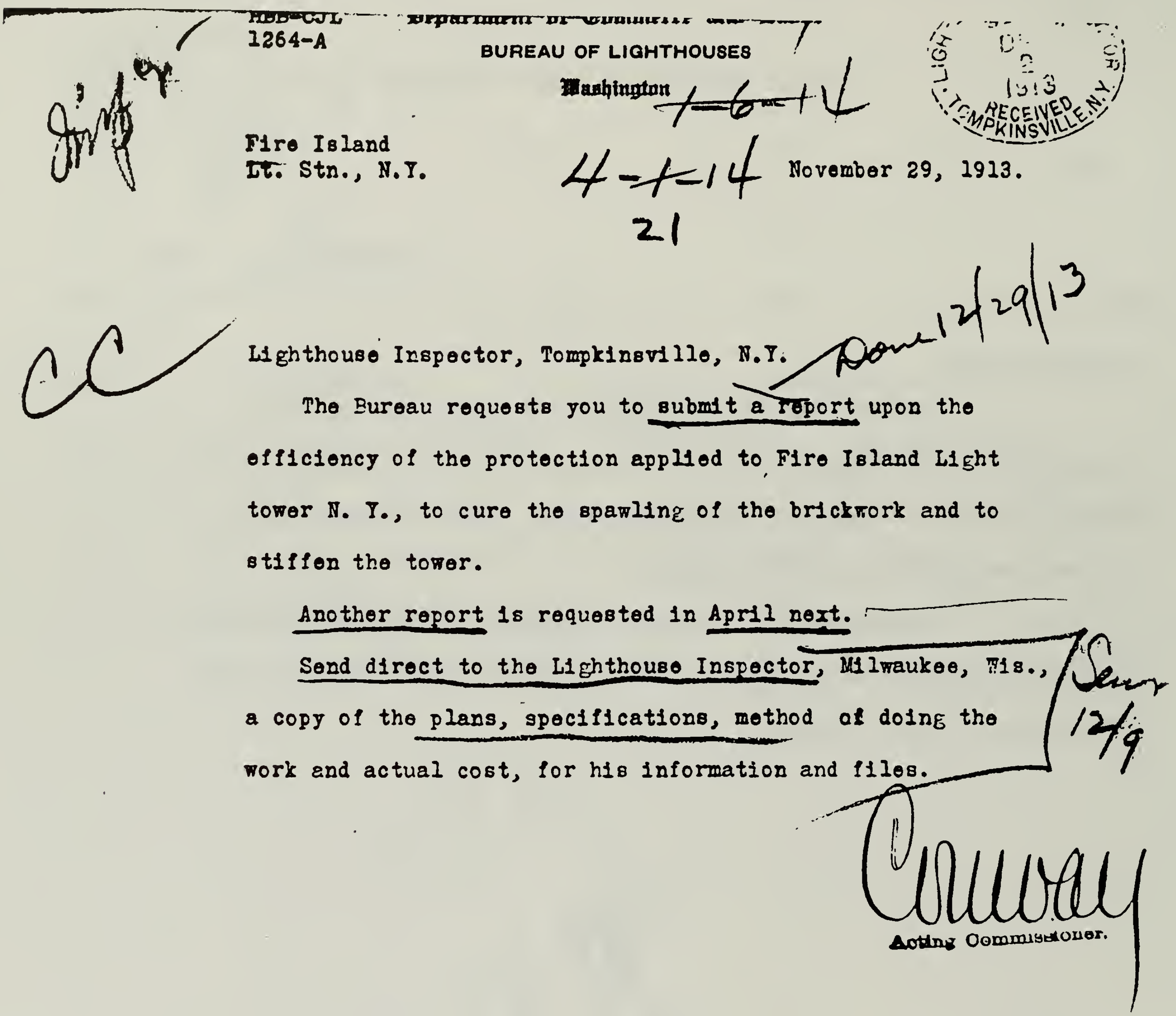
Commissioner:

On the monthly report of operations in this district for November it will be noted that the cost of the repairs to the tower at Fire Island Lt. Sta. exceeds the amount authorized by the Bureau.

This excess is due to greater difficulty than was anticipated in chipping tower, placing reinforcing iron, and constructing staging.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 64

See Report Monthly



HBB-CJL
1264-A

BUREAU OF LIGHTHOUSES
Washington ~~1-6-14~~

RECEIVED
DEC 2 1913
TOMPKINSVILLE, N.Y.

Fire Island
Lt. Stn., N.Y.

4-1-14
21

November 29, 1913.

CC

Lighthouse Inspector, Tompkinsville, N.Y.

Done 12/29/13

The Bureau requests you to submit a report upon the efficiency of the protection applied to Fire Island Light tower N. Y., to cure the spawling of the brickwork and to stiffen the tower.

Another report is requested in April next.

Send direct to the Lighthouse Inspector, Milwaukee, Wis., a copy of the plans, specifications, method of doing the work and actual cost, for his information and files.

Sent 12/9

Conway
Acting Commissioner.

Correspondence File ca. 1909-39
626 Aids to Navigation & 601 Operations
Records of the Third Light-House District
National Archives RG 26
Box 97

JTY/RJO.

December 9th, 1913.

Inspector, 12th District,
MILWAUKEE, W I S.

Enclosed herewith in accordance with instructions contained in Bureau letter of November 29th, 1913, are prints of drawing No. 5155, showing method used in applying protective coating to Fire Island Light Tower.

There were no specifications drawn for this work, as same was done under direction of this office by hired labor.

The entire surface of tower was chipped to insure bond of the cement, the chipping being done by pneumatic hammers. The air for same was supplied by a 15 H.P. De La Vergne Oil engine, direct connected to an air compresser. A hoist was also attached to this engine and same was used for hoisting material.

The work was commenced at bottom of tower, and coating applied in two coats, the second being applied before first had become hard to insure bond. The work was done from stagings, the same being built up as work progressed.

There were several cracks in tower, one crack extending completely around the tower. In places where cracks existed, the tower was reinforced with iron dogs, before cement coating was applied.

Before coating was applied, the tower had excessive sway and vibration, and large sections of the brickwork were continuously spalling off, especially in cold weather. All of this was stopped by the coating applied.

To date the work has proven highly satisfactory, no large cracks, loosening, or other defects having occured.

Atlas cement mixed two to one with sharp beach sand was used, and to each barrel of cement there was added six gallons of heavy residue mineral oil as a waterproofing.

The entire cost of work is as follows:

Fire Island Tower	Labor	Material.
Set up our plant, furnish tools and fit up camp for workmen,	$293.65	$124.97
Cost of lumber for staging,		543.69
Cost of furnishing and installing reinforcement and bands, chipping and plastering tower, removing and replacing stove pipe, lightning rod and insulators, and labor to put up staging,	2745.34	1156.70
Pay of cook,	244.00	
Meals of workmen and Aid(Muth),	1017.13	
Travel expenses of workmen,	30.43	
Totals	4330.55	1825.36
Grand total,		$6155.91

Enclosed are copies of specifications used in purchase of expanded metal and mineral oil. The hands, clips, dogs, etc., were made at this depot.

SPECIFICATIONS FOR EXPANDED METAL REINFORCEMENT
FOR USE IN PROTECTIVE COVERING OF TOWER
FIRE ISLAND L.S., NEW YORK

TYPE

The expanded metal furnished for concrete reinforcement will be the 3" diamond mesh type, cut from No. 10 gauge rolled steel sheets.

STEEL

The steel used is to be soft steel with a tensile strength of not less than 50,000 lbs per sq. in., and must bend cold 180 degrees flat on itself without fracture on outside of bent portion.

SIZE

The expanded metal shall be sheets of six feet (6 ft.) width, and ten and one half feet (10' 6") length. Mesh to be three (3") inches the short way with a net sectional area of the metal sheet of not less than 0.353 sq. in. per foot of width (similar to a product advertised by the General Fireproofing Co., Youngstown, Ohio).

-

-

TJL
12-8-13.

SPECIFICATIONS FOR HEAVY RESIDUAL MINERAL OIL.

Heavy residual mineral oil to be used as concrete waterproofing. To be delivered in barrels.

Bidders will please submit sample of oil they propose to furnish.

Dec. 20, 1913.

The Lighthouse Inspector,
Tompkinsville, N.Y.

Sir:

Pursuant orders I proceeded from New York to Fire Island Light Station on Dec 20, 1913, and on same date thoroughly examined the reinforced cement plaster coating applied to the exterior of the tower.

I examined the surface of the tower for cracks, and found that between each successive belt section, there were horizontal cracks. Also that about 20 per cent. of the area of the lower 40 feet of the tower, the surface of the cement work was crazed.

I tested the adhesion of the cement plaster to the brickwork by sounding with a hammer, and found that about 60 per cent of the lower 20 feet of the tower sounded loose. I also tested the upper part of the tower adjacent to windows in a similar manner, but could not discern any sound of hollowness.

Test holes were cut with a chisel through the cement plaster, at such places where the hollowness of sound was most apparent. I found that the thickness of cement plaster averaged about 2½ inches, and that there were no voids between the cement plaster and the brickwork. The brick was very soft at these places, and experienced no difficulty in running a knife blade between the cement plaster and the brick, disintegrating the brick as the blade advanced.

There is a leak under the stone lantern platform, and water tracks through the walls, discoloring and flaking off the whitewash on the interior of the tower.

Notwithstanding the defects hereinbefore mentioned, the effectiveness of the work is very apparent. The vibration of the tower has been reduced considerably, and the keepers no longer experience any discomfort when standing their watches in windy weather. The tower presents a neat appearance, a smooth surface without any discoloration.

Respectfully
Kingsbury.

JTY/RJC.

December 29th, 1913.

Commissioner:

Referring to Bureau letter of November 24th, re protection applied to Fire Island Light Station:

Asst. Superintendent Hingsburg made an inspection of this tower on December 20th, 1913, and copy of his report of same is attached.

YATES

Copy WJL

GENERAL CEMENT-GUN COMPANY
914 South Michigan Ave.,
Chicago Ill.

April 25,1914.

Inspector of Light Houses,
Third District,
Tompkinsville, N.Y.

Dear Sir:-

This firm has recently quoted the Inspector of Light Houses for the 12th District, a price on coating the Gross Point Light House at Evanston, Ill. with the Cement Gun. Our proposition to them being that the brick of the structure be thoroughly cleaned, a heavy reinforcing wire secured to the brick by means of expansion bolts and then coated with a mixture of one part cement and 2-1/2 parts sand to a thickness of 2" by means of the Cement Gun.

The Inspector, Captain Stoddard and the Superintendent, Mr.Works were evidently in favor of this work, but have heard that the New York Cement Gun Company or some other Company operating Cement Guns in the East had done some work with the Cement Gun on the Fire Island Light House and that this work was not satisfactory.

This has quite naturally caused the Inspector of this District to change his mind relative to having the Cement Gun used here and we will greatly appreciate your kindness if you will inform us who handled this work in New York and why the work was not satisfactory.

Yours very truly,
GENERAL CEMENT GUN COMPANY
(Sgd) C.L.Dewey
Superintendent.

Fire Island Lt. Sta.

FWO/WJL

220

April 29,1914.

General Cement-Gun Company,
914 South Michigan Ave.,
Chicago, Ill.

I have to acknowledge receipt of your letter of April 25th 1914 and to say that the work on the tower at Fire Island Light Station was not done with a cement gun. The work done at Fire Island which was that of coating the outside of the tower has been entirely satisfactory.

Yates

Inspector.

Office of the Inspector, 3rd District,
Tompkinsville, N.Y., April 29,1914.

Copy forwarded to the Commissioner for information contained.

TOMPKINSVILLE, N. Y.

LIGHTHOUSE SERVICE

GENERAL DEPOT
OFFICE OF INSPECTOR, 3D DISTRICT
TOMPKINSVILLE, N.Y.

RECEIVED
TOMPKINSVILLE, N.Y.

FCH-HLD

Fire Island
Lt.Sta., NY.

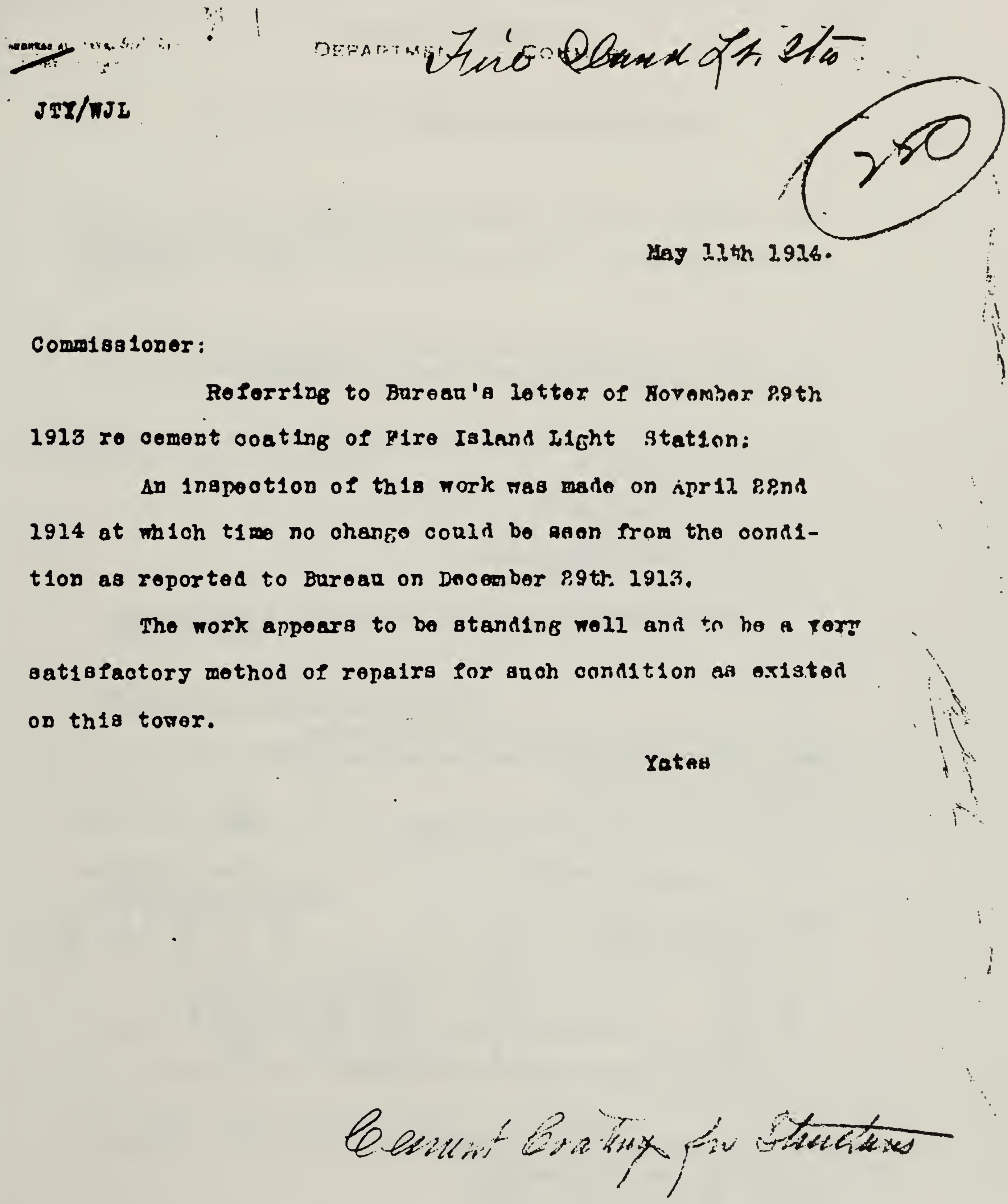
May 8, 1914.

Inspector:-

In compliance with your orders of April 22, 1914, I proceeded to Fire Island Light Station, and on same date examined the reinforced cement plaster coating applied to the tower.

I thoroughly examined the surface of the tower and found it to be in the same condition as reported on December 20, 1913. No other cracks or defects have developed since that time.

Frederick C Kingsbury
Asst.Superintendent.



DEPARTMENT Fire Island Lt. Sta.

JTY/WJL

250

May 11th 1914.

Commissioner:

Referring to Bureau's letter of November 29th 1913 re cement coating of Fire Island Light Station:

An inspection of this work was made on April 22nd 1914 at which time no change could be seen from the condition as reported to Bureau on December 29th. 1913.

The work appears to be standing well and to be a very satisfactory method of repairs for such condition as existed on this tower.

Yates

Cement Coating for Structures

TJL

Mr.Muth's estimate.

Fire Island L.S. 13668

Face off and plaster outside of tower.

20 bbls cement.

Pipe,pipe connections and hose,as follows:

200 ft. 3/4" pipe and couplings,iron.
4, 3/4" T's, iron.
4, 1" to 3/4 bushings,iron
2, air connections.
2, 50 ft. length s air hose
2, air hammers,chipping.
4, 3/4" globe valves.
6, 3/4" Nipples................Mch. S1439.

The following to be used in connection with placing of concrete protective covering.

5 copper ventilators No.11 gage ....Mch. has order

200 pcs. expanded metal....................open purchase

7000 spacing clips)
64 bolting lugs)
28 rods)
7 rods)
25 rods)
8 dogs)
2 eye bars)
2 bolts, 1 1/2" dia)

ORDER WAS ISSUED ON
BLK TO MAKE THIS

Drawing No. 5155.

55 lag screws, 3½"long,3/8" dia.
100# wire lacing,annealed.
500# , 20 penny wire nails
400#, 10 " " "

225

TO BE USED ~~IN~~ IN TEMPORARY ENGINE SHACK

2 single sliding window sash
(this is 2nd hand sash in box store ......Car. S. 1451.
attic)

40 lin. ft. of 4" copper flashing in lengths ([illegible])
of 16 to 36 inches.

10 lbs shingle nails (wire)
2 bundles cedar shingles.

TIMBER FOUNDATION FOR ENGINE COMPRESSOR AND HOISTER.

~~[illegible]~~

1 pc. 8 x 12" x ~~20~~x----)This has been picked
1 pc. 8 x 12 x ----)out and marked by Mr.
1 pc 8 x 13 x ----)Muth. (New lumber)

Second Hand lumber
3 pc 6 x 12 x 8 ft
1 pc 8 x 12 x 8 ft.
2 pc 6 x 12 x 7 or 8 ft.

1 pr 12" iron strap hinges and cut nails.

6 - 1 1/4" x 12" through bolts with 4 washers each.

6 - 5/8" x 10" through bolts and washers.
14 drift bolts 3/4" x 14" long

} Sub.on Bl
1449

Mr.Muth's estimate.

2-45

Fire Island Lt. 13668

LIST OF TOOLS NEEDED

1 5-lb. pin maul.
1 portable forge
4 open wrenches (1 7/8" nut)
2 monkey wrenches
~~1 Stillson (small size 6")~~
1 Hacksaw and two dozen blades.
~~1 Brace and bitts, 1/2",1" and 1/4"~~
  Nippers or shears to cut expanded metal mesh.
  Augers for ~~drilling~~ boring 1 1/2" hole
1 Large sledge.
4,6" double blocks,loose and 40 ft.of 2" falls to draw mesh together around tower.
1 stock and die for threading 1 1/8" bars.
1 pipe vise to hold bars.
2 nail hammers.
1 hand axe.
1 crosscut saw

CEMENT TOOLS

4 shovels
2 hoes
1/2 doz. galv. buckets
1/4" sand screen
3 wood wheel barrows

Sharpen 4, 1" cold chisels
" 2, 1" handle chisels
" 1, 1" star drill to cut holes in brick for wood plugs and lag screws
" 1, 5/8" dia. star drill
} Sub.on Blk. 1440

Dishes to go:
12 soup bowls
15 dinner plates
2 sugar bowls
15 coffee mugs
4 vegetable dishes)open)
2 butter dishes
4, 14" meat platters.

2-25

Camp supplies:

6 wash basins [illegible]
9 cots.
9nsets double blankets and hair pillows
9 folding chairs
2 sheets galv. iron to cover 3 ft. dia.holes in roof
  of machine house (Make 4 ft. square)
1, six hole cook stove
1, small shovel
1, coal scuttle
1 ton coal
1 bbl lime for disinfecting.
1 doz. white floating soap.
25 lbs. kitchen soap.
2 doz. crash towels.

2 screen doors 7' 1 3/4" x 34" (temp use).........Sub.on Car.1438

15 ft. of 6" pipe with one elbow (for cook stove).Sub.on Mch.1442

S-H.

1764-E

This article sent to Mrs. J. R. Hoag of Patchogue
L.D. Bur. Letter 6/12/15.

FIRE ISLAND LIGHT STATION, NEW YORK.

---oo---

The Act of Congress of March 3, 1825, appropriated $10,000 for the erection of the original lighthouse built on the east side of Fire Island Inlet, south side of Long Island. The lighthouse was built the following year. The illuminating apparatus originally installed consisted of eighteen lamps, with fifteen-inch reflectors, producing a light which revolved once every minute and a half, the light being 89 feet above high-water mark. In 1842 the light was refitted, the number of lamps being changed to fourteen, with twenty-one-inch reflectors.

The Act of Congress of March 3, 1857, appropriated $40,000 for rebuilding the lighthouse and installing therein illuminating apparatus of the first-order, Fresnel system. Work on the present tower, the plans for which were prepared under the direction of engineer officers of the United States Army, was begun during the summer of 1857, and completed in 1858, the light being exhibited for the first time on November 1st of that year. The tower is located about 200 feet northeast of the site of the original lighthouse. It is built of brick, 180 feet high, the light being 167 feet above high-water, and can be seen at a distance of nineteen nautical miles in clear weather, the observer's eye being fifteen feet above the sea. Until August 1891, the color of the tower was yellow, or cream color, but at that time it was changed to alternate bands of black and white, two of each color, each band being about thirty-five feet wide. In 1912 the brickwork having shown signs of disintegrating, the outside of the tower was covered with a coating of reinforced concrete. The light has an intensity of 170,000 candlepower, and shows a white flash of five seconds duration each minute.

In the earlier years of the Lighthouse Service sperm oil was used in the lamps as the illuminant; about 1867 lard oil came into general use and continued until 1885 at this lighthouse when it was displaced by kerosene, the illuminant now generally used throughout the service.

File Permanently

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

1264-E

11479--251:9
Mat-4-L

IN REPLY ADDRESS
THE SECRETARY OF THE NAVY
AND REFER TO NO.

NAVY DEPARTMENT,

WASHINGTON,

Hydrog.
Engr. Corps
Mar Engr
Personnel
Accounts.
~~[illegible]~~
~~[illegible]~~
Dep. Commdr.
Commdr.

February 25, 1916.

NEB

Suggest [illegible] sent copy [illegible] letter from Navy [illegible]

LIGHTHOUSES
FEB 26 1916

Sir:-

Receipt is acknowledged of your letter of the 21st instant, in which you state that the Department of Commerce has no objection to the digging by this Department of the necessary trenches on the United States Lighthouse Reservation at Fire Island for the purpose of placing underground all overhead wires within a radius of 2000 feet of the radio compass station.

Sincerely yours,

Josephus Daniels
Secretary of the Navy.

The Honorable
The Secretary of Commerce.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
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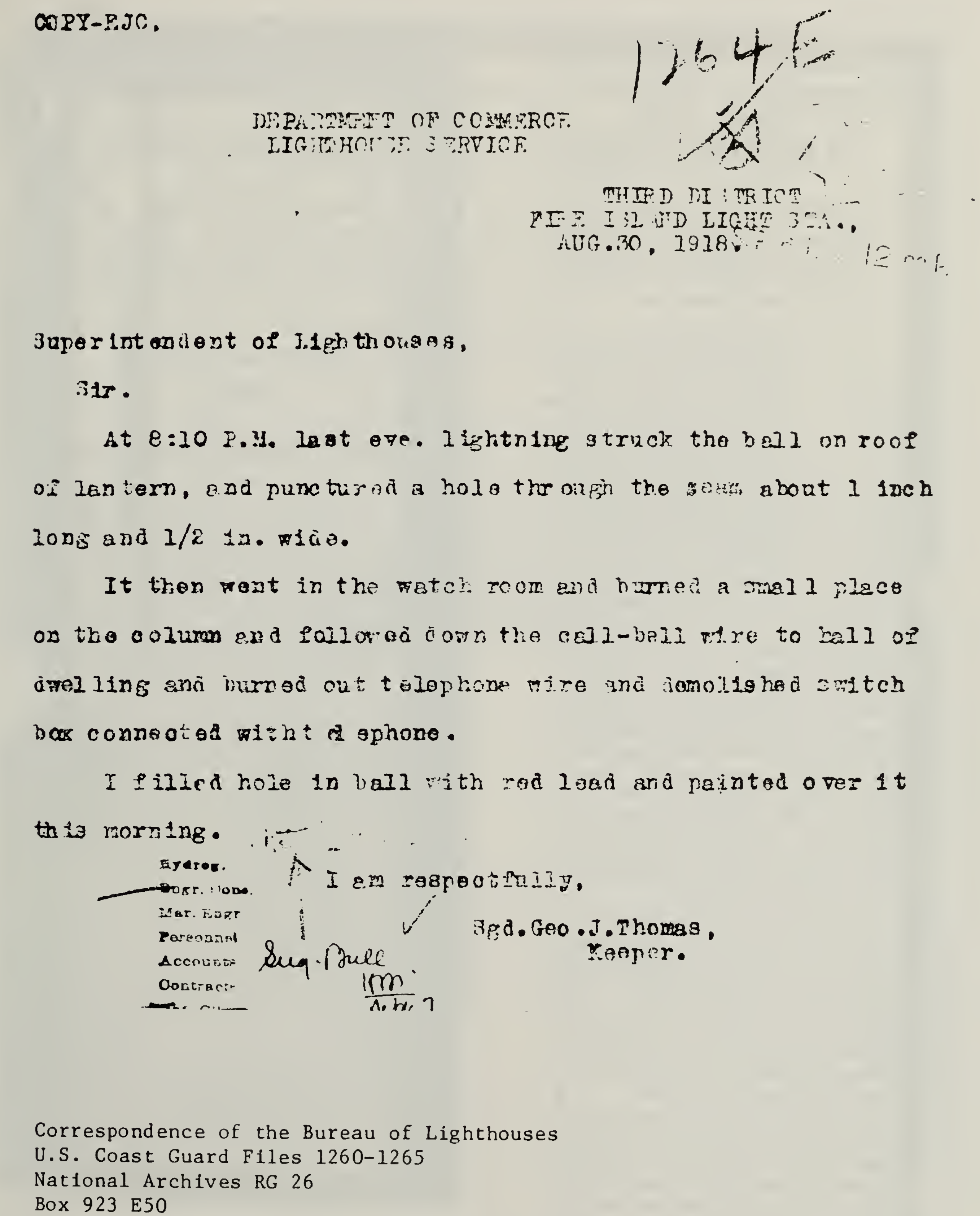


COPY-EJC.

1264 E

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

THIRD DISTRICT
FIRE ISLAND LIGHT STA.,
AUG.30, 1918.

Superintendent of Lighthouses,

Sir.

At 8:10 P.M. last eve. lightning struck the ball on roof of lantern, and punctured a hole through the seam about 1 inch long and 1/2 in. wide.

It then went in the watch room and burned a small place on the column and followed down the call-bell wire to hall of dwelling and burned out telephone wire and demolished switch box connected witht elephone.

I filled hole in ball with red lead and painted over it this morning.

Hydrog.
~~Engr. Dept.~~
Mar. Engr
Personnel
Accounts
Contract

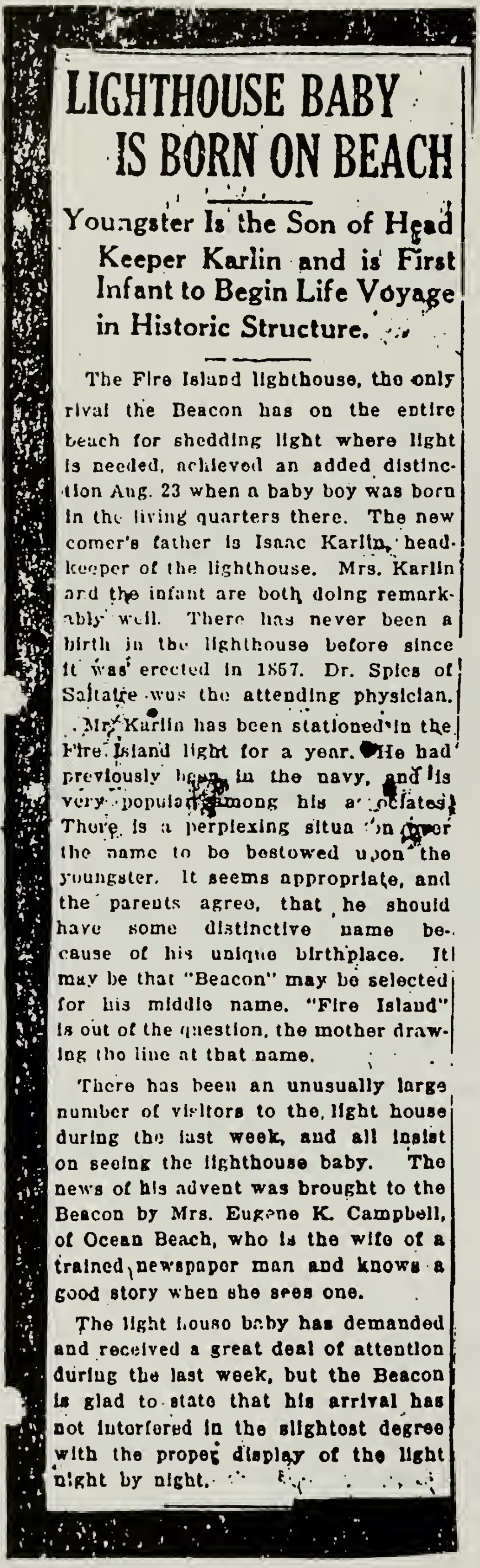
Sug. Bull

I am respectfully,

Sgd. Geo. J. Thomas,
Keeper.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

APPENDIX C136.



LIGHTHOUSE BABY IS BORN ON BEACH

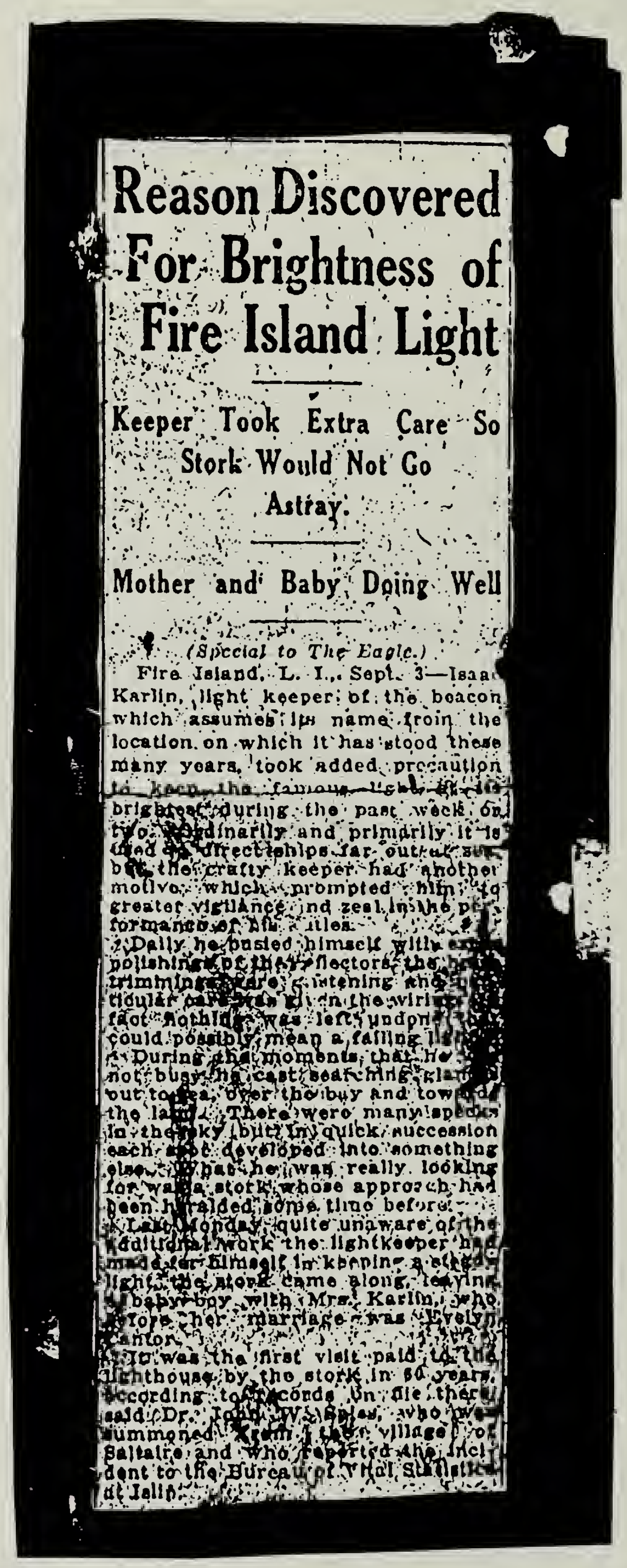
Youngster Is the Son of Head Keeper Karlin and is First Infant to Begin Life Voyage in Historic Structure.

The Fire Island lighthouse, the only rival the Beacon has on the entire beach for shedding light where light is needed, achieved an added distinction Aug. 23 when a baby boy was born in the living quarters there. The newcomer's father is Isaac Karlin, head-keeper of the lighthouse. Mrs. Karlin and the infant are both doing remarkably well. There has never been a birth in the lighthouse before since it was erected in 1857. Dr. Spies of Saltaire was the attending physician.

Mr. Karlin has been stationed in the Fire Island light for a year. He had previously been in the navy, and is very popular among his associates. There is a perplexing situation over the name to be bestowed upon the youngster. It seems appropriate, and the parents agree, that he should have some distinctive name because of his unique birthplace. It may be that "Beacon" may be selected for his middle name. "Fire Island" is out of the question, the mother drawing the line at that name.

There has been an unusually large number of visitors to the light house during the last week, and all insist on seeing the lighthouse baby. The news of his advent was brought to the Beacon by Mrs. Eugene K. Campbell, of Ocean Beach, who is the wife of a trained newspaper man and knows a good story when she sees one.

The light house baby has demanded and received a great deal of attention during the last week, but the Beacon is glad to state that his arrival has not interfered in the slightest degree with the proper display of the light night by night.



Reason Discovered For Brightness of Fire Island Light

Keeper Took Extra Care So Stork Would Not Go Astray.

Mother and Baby Doing Well

(Special to The Eagle.)

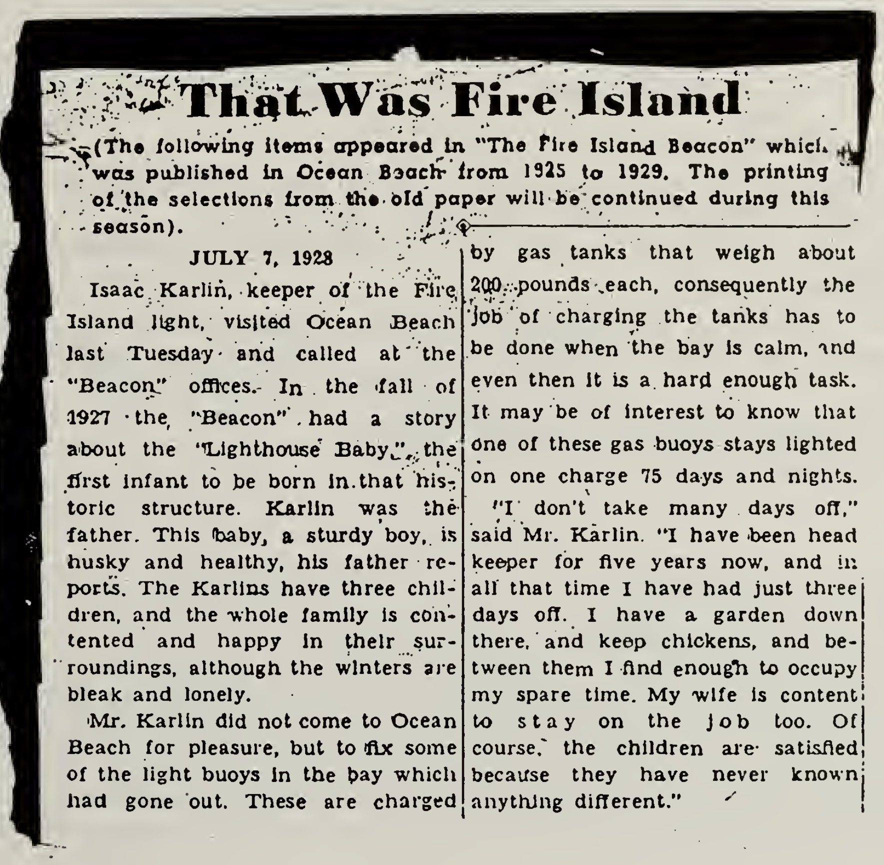
Fire Island, L. I., Sept. 3—Isaac Karlin, light keeper of the beacon which assumes its name from the location on which it has stood these many years, took added precaution to keep the famous light [illegible] brightest during the past week or two. Ordinarily and primarily it is used to direct ships far out at sea, but the crafty keeper had another motive which prompted him to greater vigilance and zeal in the performance of his duties.

Daily he busied himself with [illegible] polishing of the reflectors, the trimmings were glistening and particular care was given the wiring. In fact nothing was left undone [illegible] could possibly mean a failing light.

During the moments that he was not busy he cast searching glances out to sea, over the bay and towards the land. There were many specks in the sky, but in quick succession each spot developed into something else. What he was really looking for was a stork whose approach had been heralded some time before.

Last Monday, quite unaware of the additional work the lightkeeper had made for himself in keeping a steady light, the stork came along, leaving a baby boy with Mrs. Karlin, who before her marriage was Evelyn [illegible].

It was the first visit paid to the lighthouse by the stork in 60 years, according to records on file there, said Dr. John W. Spies, who was summoned from the village of Saltaire and who reported the incident to the Bureau of Vital Statistics at Islip.



That Was Fire Island

(The following items appeared in "The Fire Island Beacon" which was published in Ocean Beach from 1925 to 1929. The printing of the selections from the old paper will be continued during this season).

JULY 7, 1928

Isaac Karlin, keeper of the Fire Island light, visited Ocean Beach last Tuesday and called at the "Beacon" offices. In the fall of 1927 the "Beacon" had a story about the "Lighthouse Baby", the first infant to be born in that historic structure. Karlin was the father. This baby, a sturdy boy, is husky and healthy, his father reports. The Karlins have three children, and the whole family is contented and happy in their surroundings, although the winters are bleak and lonely.

Mr. Karlin did not come to Ocean Beach for pleasure, but to fix some of the light buoys in the bay which had gone out. These are charged by gas tanks that weigh about 200 pounds each, consequently the job of charging the tanks has to be done when the bay is calm, and even then it is a hard enough task. It may be of interest to know that one of these gas buoys stays lighted on one charge 75 days and nights.

"I don't take many days off," said Mr. Karlin. "I have been head keeper for five years now, and in all that time I have had just three days off. I have a garden down there, and keep chickens, and between them I find enough to occupy my spare time. My wife is content to stay on the job too. Of course, the children are satisfied because they have never known anything different."

3

1264a

Form 80
DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

RECOMMENDATION AS TO AIDS TO NAVIGATION

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES **Third** DISTRICT.

LIGHTHOUSES 1929 MAR 29 AM 8 58

OCL:GL

March 23, 1929.

THE COMMISSIONER OF LIGHTHOUSES:

The following recommendation is submitted for the consideration of the Bureau:

1. Name of aid: Fire Island Light Station, New York.
2. Locality: Near the westerly end of Fire Island - Easterly side of Fire Island Inlet.
3. Proposed action: Provide hot water heating systems for quarters of three keepers as per drawing #7394, 1 sheet and specifications herewith.
4. Necessity: To make quarters comfortable in cold weather.
5. Total estimated cost: $1500.00
6. Appropriation: G.E. 1929
7. Payment: To be made from funds allotted. heretofore
8. Maintenance estimated, annual cost: $25.00
9. Authority is also requested to purchase the material needed, and not now on hand, at an estimated cost of $ -- , in accordance with law and regulations, and to do the work by contract without bond, $1500.00; hired labor and depot force, $ -- ; crew of vessels, $ -- . This method of performance being considered the cheapest and most advantageous to the service.
10. The reasons for requesting authority to do this work partly or wholly by hired labor rather than contract are:
11. Additional description and information: Stated above.

Airways
Surveys
Constrn.
Commns.
Weather
Clerical
Adm. Gear.
Air Engr.
Chief Engr.
Hydro.
Radio
~~Maint. Constrn.~~
Mar. Engr.
Personnel
Finance
~~Law & Accts.~~
Commissioner

Concur

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Date filed 4 - 5 - 29 RGR

J. T. YATES
Superintendent.

NGR
File

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES
Washington, APR 2 1929

Returned to the Superintendent of Lighthouses, approved as recommended, except as noted. You will proceed with the work and report its status, until completed, in your Monthly Report of Operations.

G. R. PUTNAM

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-A

APPENDIX C137.

Form 88
OCL:

ESTIMATE OF COST OF PROPOSED WORKS

1764a

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

NAME OF AID: Fire Island Light Station, N.Y.

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES 3d DIST.

PROPOSED WORK: Provide heating plant for three sets of quarters.

March 23, 1929

GHTHOUSES
1929 MAR 29 AM 8 58

11—535

ITEMS, QUANTITIES, AND UNIT PRICES	AMOUNT
Heating plant as per drawing #7894. 1 sheet.	$1500.00

Estimate prepared by C. C. LUTHER.

Form
DEPARTMENT O. OMMERCE,
LIGHTHOUSE SERVICE.

1264a

CONTRACT FEATURES.

Office of Superintendent of Lighthouses, Third *District.*

DATA FOR PROPOSED CONTRACT FOR Hot water heating system at Fire Island L
(Purchase of supplies, repair, or construction work.)

ON ACCOUNT OF FORM 80, DATED March 23, 1929.

1. Form to be used, No. 110, edition of Not dated

2. Guaranty or certified check for $ none

3. Bond required with contract, $ none

4. Damages for delay { Liquidated * yes / Actual --- } $4.50 per day

5. Time and place of opening bids. Gen. Depot — Time not yet set.

6. Place of delivery. Fire Island Light Station.

7. Terms of payment. 30 days

8. Contract period. To be quoted by bidders.

9. Additional quantity clause 0 per cent more or less.

10. Hours of labor clause. included in form 110.

11. Subcontracting clause. not to be used.

12. Failure to perform clause, Form 120B. Not to be used.

13. Standard or proprietary names clause. included on form 110.

14. Newspaper advertisement will not be recommended.

This form shall be properly filled out and sent Bureau, in duplicate, with Form 80, in all cases in which contract, with or without bond, is to be entered into.

* If contract provides for two distinct objects, have separate rate for liquidated damages for each object; see Regulations 1918, art. 205, 3d par., page 82.

OCI:GL

1764a

GHTHOUSES
1929 MAR 29 AM 8 58

U. S. LIGHTHOUSE SERVICE

Specifications for
Heating Plants for Keeper's
Quarters at Fire Island
Light Station.

1. WORK TO BE DONE.

Provide and install complete 2 hot water heating plants in the quarters provided for keepers at the Fire Island Light Station, as per these specifications and Drawing #7394, 1 sheet.

2. LOCATION OF STATION.

Fire Island Light Station is located near the westerly end of Fire Island, Easterly side of Fire Island Inlet, about one and one-half miles from Saltaire Fire Island. It is accessible by boats of light draft. Bidders are advised to visit the station to ascertain conditions and obtain full data for estimating the cost of the work to be done. There is a passenger boat between Bayshore and Saltaire, N. Y.

3. There will be one boiler of not less than 1125 square feet heating capacity and one of not less than 750 square feet heating capacity furnished and set up in the cellars of keeper and assistant keeper's quarters. Each heater will be provided with a suitable brass case thermometer, Altitude guage, brass draw off cock, and all necessary cleaning and fire tools.

Bidders will state in their bids the make of boilers and radiators they propose to furnish and enclose cut and full description of same with their bids showing grate area and heating surface of boiler and radiators. The locations of radiators, pumps and boilers are shown in the accompanying drawing.

4. RADIATORS.

There will be six radiators made up of not less than three column sections about 27 inches high and three 38 inches high, the sections joined together with threaded nipples and having heating surfaces as follows:

1st floor	Hall, 2 radiators	38" high	54 sq. ft.		1-1/2"	pipe
	LivingRoom 1"	27" high	81.0"	"	1-1/2"	"
2nd floor	chambers 4"	27" high	81.0"	"	1-1/2"	"
" "	chamber 1 "	38" high	49.50"	"	1-1/4"	"
" "	" 1 "	27" high	86.0 "	"	1-1/2"	"

Total 628.5 sq. ft.

Each radiator will be provided with one quick acting nickel plated packless union valve and one nickel plated union elbow and one air valve and key.

5. SUPPLY AND RETURN PIPES.

The radiators will be connected with the boilers with all necessary supply and return pipes, pipe fittings and valves. The supply and return pipes will be of the same size, standard weight, lap welded, genuine iron pipe. All the ends of pipe and pipe nipples will be reamed. Reducing coupplings and fittings will be required for connecting pipes of different sizes. Where pipes pass through floors, ceilings and partitions there will be pipe sleeves as per drawing, of suitable size for the pipes to pass through easily. All pipes exposed in rooms will be straight and will stand properly. All fittings will be of gray iron castings with heavy rectangular beads, clear threads, tapped to guage and true. All horizontal pipes will be suspended from ceilings with substantial iron rings and hangers.

6. LIFT AND FORCE PUMP.

There will be two double acting wing style lift and force pumps installed as shown on drawing for filling the heating systems with water from wells, to be driven in cellar. Pump shall be all brass except the lever and companion flanges, suction and discharge fitted for 1 inch iron pipe. Pump to be provided with brackets for mounting on wall and have a capacity for suction lift of not less than 15 feet and for a total working elevation of not less than 50 feet at the rate of approximately 6 gallons per minute. Pumps to be similar to No. 3 shown in figure 551, Page 58 of Rumsey Pump Company's 57 Edition General Catalog or to No. 2 shown in figure 418-K, page 72, W. & B. Douglas Catalog M. Bidders will furnish cut and description of the pump they propose to furnish.

7. DRIVEN WELLS.

There will be two wells, driven in cellars at the proper locations for connection with the heating systems supply pumps. It will be of one inch diameter, galvanized pipe fitted with a brass jacket drive well point size No. 78, 1"x36" having 120 holes, similar to Point shown in The Gould Mfg. Company, Seneca Falls, N. Y., Page 53, Figure 524, Catalog K.

The wells must be driven to such depth as will insure an adequate water supply for filling the boilers, and before attaching to the boiler. All the sand must be removed from inside the well points.

8. EXPANSION TANK AND PIPING.

Two galvanized sheet iron expansion tank 16 inches diameter by 30 inches long, tapped top and bottom for 1 inch overflow and expansion pipes and equipped with a water guage glass between two shut off valves with two guards, will be located as shown on drawing No. 7394. 1 sheet.

9. SMOKE PIPE.

The boilers will be connected with chimney by smoke pipe of No. 12 galvanized sheet iron, which will have a suitable collar. The thimbles or smoke pipe receivers will be installed by the contractor. It will be of proper size to receive smoke pipes easily.

10. CUTTING AND CARPENTER WORK.

All openings for pipes in walls and floors will be carefully made, and the pipe sleeves installed to completely cover all pipe holes. Contractor will leave the premises in as good condition as he finds them.

11. TESTING.

The whole system when completed must be tested by the contractor with a hydrostatic pressure of not less than 50 lbs. per square inch and must show that all parts are strong and tight under this pressure. The system must work easily and without noise and a complete and uniform circulation established and maintained throughout the entire system.

12. PAINTING AND BRONZING.

After the system has been satisfactorily tested, the boiler will be covered with asbestos cement 1-1/2" thick, well wired, and trowelled down smooth to make a neat job. All pipes in celler will be covered with moulded asbestos sectional covering, held in place by canvas jacket and brass lacquered band. All L's and T's will be covered with plastic asbestos cement and covered with canvas. All pipes above cellar showing in rooms and all radiators will be painted one coat of flat gray paint made from white lead paint and lamp black, and one coat of aluminum bronze, applied in the best manner after the surfaces have been properly cleaned and are in good condition. The nickel plated fittings and valves will not be painted.

13. GENERAL CONDITIONS.

All materials to be used on the work herein specified will be of the best of their respective kinds and all work must be done in a neat, thorough and workmanlike manner.

14. A representative of the Superintendent of Lighthouses, Staten Island, N. Y. will inspect all materials and workmanship. The contractor must be present at the site or be represented by an agent authorized to act for him while the work is in progress.

15. PAYMENT.

Payment for all the work specified herein will be made within 30 days of the completion of the work as specified and the receipt of properly certified bills.

APPENDIX C137.

12642

Address [illegible] munications to
Superinten[illegible] of Lighthouses
Staten Island, N. Y.

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

GENERAL DEPOT
OFFICE SUPERINTENDENT OF LIGHTHOUSES
3RD DISTRICT, STATEN ISLAND, N. Y.

WTD:LJE

LIGHTHOUSES
1929 NOV 27 AM 8 58

LIGHTHOUSES
1929 DEC [illegible] PM

②

November 25th, 1929

Rec. F.K.
and to Depo. 24

Commissioner.

7428
11/29

Subject: Liquidated damages, order 30471 dated August 5th, 1929 - furnishing and installing, etc. two heating plants in Keepers' quarters at Fire Island Light Station.

1/20/29 Do 404288

Reference: Contract (Form 110) C3a-1338 - Peter Kleindienst, dated August 5th, 1929.✓

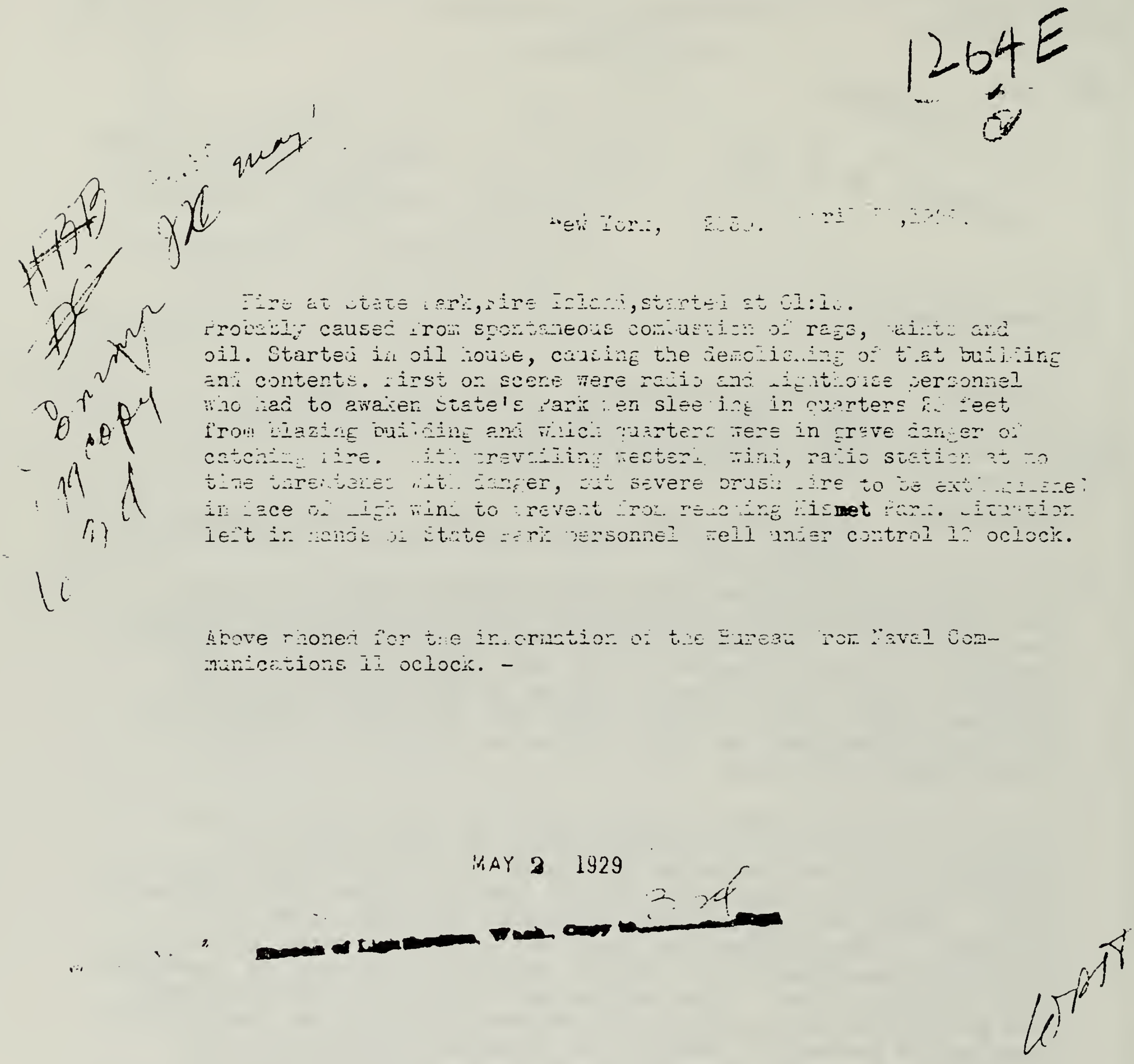
OK
wPK
11/29

1. The aforementioned order was not completed within the time stipulated in the contract, and liquidated damages are involved. Certified copy of voucher 1797 is forwarded herewith. Also transmitted for the consideration of the General Accounting Office is claim of the contractor dated November 14th, 1929 together with the necessary voucher for the $40.00 deducted by this office as liquidated damages when payment was made.

2. The contractor states that on August 10th he ordered two boilers with instructions that they must be shipped so as to arrive at destination to permit the completion by the steamfitter of the job not later than September 16th. There was apparently no agreed definite time for delivery. The instruction that boilers be shipped so as to arrive at destination to permit completion of job by September 16th is indefinite. The contractor states that he received the boilers on August 31st and September 3rd. The contractor then had a period of 13 days to transport boilers to the station and install them in order to complete contract by September 16th; this portion of the work could be accomplished in 13 days time, but no part of the work was started until August 29th. If the pipe, radiators, etc. had been installed and other incidental work done at any time between date of order and receipt of boilers, the installation of boilers and other work necessary to complete contract could have been accomplished before the expiration of specified time for completion, in view of which this office cannot see that relieving the contractor from liquidated damages due to delay in delivery of boilers would be justified.

3. The order, dated August 5th, was not mailed until August 7th, and the contractor should not be charged with

APPENDIX C138.



1264E

New York, [illegible] April [illegible]

Fire at State Park, Fire Island, started at 01:1[illegible]. Probably caused from spontaneous combustion of rags, paints and oil. Started in oil house, causing the demolishing of that building and contents. First on scene were radio and lighthouse personnel who had to awaken State's Park men sleeping in quarters 80 feet from blazing building and which quarters were in grave danger of catching fire. With prevailing westerly wind, radio station at no time threatened with danger, but severe brush fire to be extinguished in face of high wind to prevent from reaching Kismet Park. Situation left in hands of State Park personnel well under control 10 oclock.

Above phoned for the information of the Bureau from Naval Communications 11 oclock. -

MAY 2 1929

Bureau of Lighthouses, Wash. Copy [illegible]

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

IN REPLYING ADDRESS
COMMISSIONER OF LIGHTHOUSES
AND REFER TO DATE OF THIS LETTER
AND FILE NO.

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES
WASHINGTON

C
295 50

June 3, 1929

1929 JUN 22 AM 8 55

So adv. 3rd & request submission another ltr. at proper time 6/24

Extract from letter of Commissioner June - 1929.

****

Mr. Manning, 1st Officer, AMERICA, suggested desirability more efficient lights FIRE ISLAND LIGHTSHIP and Lighthouse, and greater distinction between them - think there is danger of confusing one with the other in low visibility.

****

- -

C Bureau of Lighthouses, Washington, D. C.

Referred to Superintendent of Lighthouses, Staten Island, N.Y., for report and recommendation.

H.D. KING.
Acting Commissioner of Lighthouses.

-----------O-----------

JTY:FM Office of Superintendent of Lighthouses,
Staten Island, N. Y., 3rd District.
June 21, 1929.

Returned to Commissioner.

Fire Island Light Station has a flash of 5 seconds duration, Fire Island Lightship has a flashing of 25 seconds duration, under which conditions this office fails to see how these two lights can be confused; also, Fire Island Light Station is seldom ever used to any extent by deep draft vessels as practically all of same pass to the southern of the Lightship, and are out of the range of Fire Island Light Station in any conditions of weather where low visibility is concerned. The great difference in characteristics between these two lights we presume was created to eliminate any possibility of confusion between the two, and this office would not recommend any change except possibly an increase in candle power of the light on Fire Island Lightship.

1264 E

IN REPLYING ADDRESS
COMMISSIONER OF LIGHTHOUSES
AND REFER TO THIS LETTER
AND INITIALS

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES
WASHINGTON

SUPERINTENDENT OF LIGHTHOUSES
JUL 2 1929

C
12645
LIGHTHOUSES
1929 AUG 15 AM 9 00

July 1, 1929.

7/16

Superintendent of Lighthouses, Staten Island, N. Y.:

1. Referring to your indorsement of June 21, 1929, relative to lights on FIRE ISLAND LIGHTSHIP and lighthouse:

2. The Bureau concurs in your views, and requests that you submit recommendation in regard to increase in candle power of light on FIRE ISLAND LIGHTSHIP. One of the new 500 mm. lanterns with a 750-watt incandescent electric lamp, drawings of which were recently sent, will give a candle power of about 16000.

Cons. File
Drawer M Folio 4C No. 6
1 bp
Plans ___ Spec. Box ___
Photos ___ Time ___
Date filed 8-24-29 agr

H.B. Bowerman.
Acting Commissioner of Lighthouses.

-----------0-----------

JTY:FM Office of Superintendent of Lighthouses,
Staten Island, N. Y., 3rd District.
August 14, 1929.

Returned to Commissioner.

1. For the increase in candle power of Fire Island Lightship this office would recommend the use of the 750 watt incandescent electric lamp, but in the present 375 m.m. lantern as this office is of the opinion that the increased divergence obtainable from a 375 m.m. lantern is of far greater benefit to navigation than is the small increase of candle power and narrower beam obtainable from the 500 m.m. lantern. Also, the wider beam from the 375 m.m. lantern is less liable to show false flashes than is the narrow beam from the 500 m.m. This will be an important factor if the short light periods now under consideration, and with which Commissioner is familiar, are adopted. This office will submit recommendations in this matter in the near future, but before so doing, desires to test out the characteristics which is now being done on Barnegat Lightship at this Depot.

2. If a change is made in the candle power of Fire Island it is recommended that the candle power of Ambrose Channel

Lightship be increased by using a 750 watt lamp in the present lenses in place of the 500 watt now in use.

3. Enclosed for the information of the Bureau are blueprints showing a comparison of the 750 watt lamp in a 375 and 500m.m. cut glass lens, which drawings were traced from those of tests made on May 6 and 8, 1929.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

2325-165 N. Y. Interstate Sanitary District No. 1

1264E

②

TREASURY DEPARTMENT

BUREAU OF

THE PUBLIC HEALTH SERVICE

LIGHTHOUSES 1929 NOV 30 AM 10 29

OFFICE OF THE SURGEON GENERAL

IN REPLYING
ADDRESS THE SURGEON GENERAL
U. S. PUBLIC HEALTH SERVICE

WASHINGTON
November 27, 1929.

Honorable George R. Putnam, Commissioner,
Bureau of Lighthouses,
Department of Commerce,
Washington, D. C.

Sir:

On September 16, 1929, Sanitary Engineer L. M. Fisher of the Public Health Service, who is in charge of our Interstate Sanitary District No. 1, was informed by the State Sanitary Engineer of New York that one of the engineers of the New York State Department of Health while making an investigation of the State Park at Fire Island noted insanitary conditions at Fire Island Lighthouse. Mention was made of the fact that the privy was too close to the wells which supply drinking water to the station, and was also in need of cleaning.

Upon receipt of this information, a representative of Sanitary Engineer Fisher's office collected samples of water from these wells on September 20, October 19, and November 6 and upon examination found that they showed evidence of fecal contamination.

It is believed that the situation mentioned above should be brought to your attention and, if recommendations as to changes believed necessary are desired, we should be glad to submit them in response to your request.

Very truly yours,

H. S. Cumming,
Surgeon General.

WASHINGTON 1929 DEC 20 AM 9

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50, File 1264-E

NOV 3 [illegible]

[illegible] Staten Island, N.Y.

[illegible] ena

W. P.

APPENDIX C141.

ADDRESS ALL COMMUNICATIONS TO
SUPERINTENDENT OF LIGHTHOUSES
STATEN ISLAND, N. Y.

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

GENERAL DEPOT
OFFICE SUPERINTENDENT OF LIGHTHOUSES
3D DISTRICT, STATEN ISLAND, N. Y.

1264-E

LIGHTHOUSES
1929 DEC 20 AM 9 20

JTY:MHD

December [illegible]

Returned to Commissioner

SUBJECT:- Fire Island Light Station

1. The water supply for this Station, and other Stations and dwellings, on Fire Island Beach, is ground water, which is obtained from a few feet below the surface of the beach, and although it is of rather poor quality, being brackish and hard, no complaints have hitherto been made regarding its quality or its wholesomeness.

2. The privy is 60 feet from the well. It has a cement vault which is bailed out about once a year, and the contents buried in the ground nearby.

3. There is a cesspool 100 feet from the well for the reception of sink waste water, where it leaches off into the soil.

4. This condition has existed since Station was built in 1858, except for the construction of the concrete vault for the privy, and conditions have never been considered unsanitary previously. The privy would not create any such conditions if the soil removed from the vault was buried at a sufficient distance away, but the sink drainage might. However, this, together with many other Stations in this District, are listed forsuch improvements as inside toilets, bath room, heating plants, etc., and a heating plant has just been installed at this station, and in the near future the other improvements will be undertaken; in connection with which a new well will be driven and water obtained from a lower level to avoid any surface contamination.

J. T. Yates

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

[redacted]

1264E

January 3, 1930.

The Surgeon General,
U. S. Public Health Service,
Washington, D. C.

Dear Sir:

Referring again to your letter of November 27, 1929, concerning the sanitary conditions of Fire Island Lightstation, N. Y.

You are advised that this Service proposes in the near future to install at this station inside toilets, bathrooms, etc. and at that time a new well will be driven and water obtained from a lower level in order to avoid any surface contamination. The Bureau thanks you for your report in this matter.

Commissioner of Lighthouses.

CJL:JAB

Bureau of [illegible]

It is requested that this work be done as soon as practicable.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

Staten Island, New York
April 3,1931 .19

Proposed Work: Make alterations to dwelling; install running water supply system; install sanitary sewage disposal system - as per Drawing 7529 and accompanying specifications.

11—A344

ITEMS, QUANTITIES, AND UNIT PRICES	Material	Labor	AMOUNT
1. Remove stairs and close the wells	$ 100.00	150.00	$ 250.00
2. Build three bath rooms	200.00	450.00	650.00
3. Skylight and light shaft with vent.	100.00	275.00	375.00
4. Plumbing fixtures, piping and fittings	900.00	1800.00	2700.00
5. Hydro pneumatic water supply	225.00	300.00	525.00
6. Sanitary sewage disposal system	150.00	200.00	350.00
7. Contingencies		300.00	300.00
	1675.00	3475.00	5150.00

Estimate prepared by O.C.Luther.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50

DATA FOR PROPOSED CONTRACT FOR Fire Island Light Station
(Purchase of supplies, repair, or construction work.)

ON ACCOUNT OF FORM 80, DATED April 3, 1931.

1. Form to be used, No. 20-25, edition of 11/19/26
2. Guaranty or certified check for $ 10%
3. Bond required with contract, $ 50%
4. Damages for delay Liquidated * Yes Actual Rate per day to be 1/5 of 1% $ of contract price plus $3.00 (minimum $6.00).
5. Time and place of opening bids. General Depot - Time not yet set.
6. Place of delivery. Fire Island Light Station
7. Terms of payment. See specifications.
8. Contract period. To be quoted by bidders.
9. Additional quantity clause ---- per cent more or less.
10. Hours of labor clause. Included in Form 23.
11. Subcontracting clause. Not to be used.
12. Failure to perform clause, Form 120B. Included in Form 23.
13. Standard or proprietary names clause. To be used.
14. Newspaper advertising will be recommended.

This form shall be properly filled out and sent Bureau, in duplicate, with Form 80, in all cases in which contract, with or without bond, is to be entered into.

* If contract provides for two distinct objects, have separate rate for liquidated damages for each object; see Regulations 1918, art. 205, 3d par., page 82.

Specifications for

ALTERATIONS TO DWELLING AND THE INSTALLATION OF RUNNING WATER, MODERN
PLUMBING, AND SANITARY SEWAGE DISPOSAL SYSTEM
at
FIRE ISLAND LIGHT STATION

✓ 1. WORK TO BE DONE: Furnish all materials and labor and accomplish alterations to dwelling, the equipment of three bath rooms with fixtures, hot and cold running water supply and a sewage disposal system as specified herein and shown on Drawing 7589, 3 sheets.

✓ 2. LOCATION OF STATION: Fire Island Light Station is located near the westerly end of Fire Island, easterly side of Fire Island Inlet, about one and one-half miles from Saltaire, Fire Island. It is accessible to boats of light draft. There is a freight and passenger boat service between Bay Shore and Saltaire, N.Y. Bidders are advised to visit the Station to ascertain conditions and obtain data for estimating the cost of work to be done.

✓ 3. ALTERATIONS TO DWELLING:

(a) Remove stairs from cellar to first floor and between first and second floors; close the opening in floors; repair the damaged wall plastering; install base on lower floor in hallway between kitchen and living room doors; and plaster ceiling of lower hall stair well, plastering to correspond with the existing wall and ceiling plastering.

Framing and flooring of stair well closures will be of same materials and construction as the floors of which they become a part. On the first floor the top layer will break joint at least 6" with the existing floor every second board. On the second floor the top flooring will be removed from the area to be enclosed in the two bath rooms in hallway to allow bath room floors of full length boards from wall to wall.

(b) Bath Rooms: Three bath rooms and one clothes closet are to be constructed and equipped as shown on Drawing #7589, 3 sheets. The framing for bath rooms will be of 2" by 3" and 2" by 4" spruce or fir lumber, with double studding at all doors and outside corners. Door frames and all finishing trim will be of the sizes shown on Drawing and of the same shape and construction to match those now existing in the halls and chambers. Studding will be spaced 16"on centers; studs in contact with the brick partition wall will be anchored to same with not less than four 1/2" expansion bolts each, 3/4" plaster grounds will be placed on each side and top of door frames.

(c) Lathing and Plastering: Before walls are lathed suitable timber foundation, for anchoring plumbing fixtures, will be placed in the bath room walls, which will then be lathed with 3/8" by 1-1/2" by 4'0" spruce laths laid a full 1/4" apart with joints broken every 8 laths, nailed on with 3-penny fine galvanized lath nails, at least one nail to every bearing. Galvanized rib steel corner beads will be used on all outside corners. Wherever plastering is required on this work it will be done with prepared plaster similar to King's Windsor asbestos cement lath mortar. It will be applied in two coats, a scratch coat well trowelled to insure strong clinches and scratched to roughen the surface for bonding with the second coat which is to be laid on true and straightened to a minimum thickness of 3/8" outside the lath. The second coat will be hand floated to produce a smooth surface, the finished surface must be free from season or other surface cracks, no finishing coat of any kind will be used.

Plastering in lower hall will be done to match the existing plastering.

(d) Doors: Five doors will be required, four of them will be 2'6" by 6'8" by 1-1/2" and one 2'8" by 6'8" by 1-1/2"; all will be of pine or fir, four panels, flush moulding; each door will be hung with bronze finish 3-1/2" by 3-1/2" loose pin butts and have solid bronze lock set consisting of easy-spring mortise lock 3-3/4" by 3-1/4" with cast bronze face, bolts and strike genuine bronze 2-1/4" knobs. Bevelled bronze escutcheons 7" by 2-1/2", nickel-plated key. Where needed each door will be provided a rubber tipped metal base knob. The skylight sashes will be hung with heavy pattern brass ice chest hinges and have universal casement adjusters. The sashes in light shafts will be hung with fast cast brass hinges and have a transom adjuster for opening, holding and closing same.

✓ 4. Light Shafts: Light shafts for each bath room will be constructed to extend from attic floor to the skylight as shown on Drawing #7529. The frames, trim and sashes in light shafts will be of white pine, tongue and groove, ceiling and studding will be of fir or cypress.

✓ 5. SKYLIGHT: A portion of the roof will be removed to make opening for skylight; the sides of opening will be provided with trimmers to support the rafters where sections of same are removed and to make foundation for skylight.

The skylight sashes, frames and trim will be of white pine, the walls will be boarded in with spruce covering boards and shingled with 18" extra cedar shingles on medium weight felt. The roof where opening is made for skylight will be reshingled as necessary and at junction of roof with skylight will be flashed with 6" by 8" #28 gauge sheet copper.

There will be three hinged sashes and one copper covered fixed blank on which will be installed a copper ventilator as shown on Drawing #7529, sheet 1.

6. LIGHT SHAFTS AND VENTILATOR:

(a) Light shafts for each bath room will extend from attic floor to the skylight as shown on Drawing #7529, Sheet 1. There will be a ladder for access through trap door to skylight. There will be a hatchway in hall ceiling for access to attic.

(b) Ventilator: There will be a 16" copper ventilator similar to the standard type (Star) ventilator shown in catalog of the Merchant and Evans Company, 227 Water Street, New York City, page 171. Ventilator base will be 20 oz. copper 16" diameter to fit pitch of roof, and it will be attached to the wooden cover of skylight and will be as shown on Drawing 7529, sheet 1.

7. PAINTING:

(a) All outside work installed by the contractor will be given a priming coat of raw linseed oil and white lead to protect it from the weather and will have two additional coats of pure white lead and boiled oil colored to match the adjoining painted work.

(b) The inside work will be given two coats of flat paint to match the existing painted work in rooms and hall.

(c) All new floors will be smoothed and varnished.

(d) All nails will be set before the priming coats of paint is applied and the nail holes and other puttying will be done between the priming and second coating.

8. PNEUMATIC WATER SYSTEM:

(a) A pneumatic water system consisting of engine or hand operated pump, engine and tank will be furnished completed with all necessary valves, gauges, fittings and pipe, and installed in accordance with Drawing 7529. System will be similar to one shown on Page 25, Bulletin H-289-C, Fairbanks Morse & Company.

(b) The pump will have a capacity of not less than 425 gallons per hour operating against a pressure of 70 pounds per square inch, and will be so constructed and equipped that it can be operated by hand or driven by belt from engine. Pump will be self-oiling with air intake fittings for service with a pneumatic tank. The cylinder will be brass lined, piston rod brass covered, and the valve seats will be of brass. Pump will be provided with a sufficient number of drain plugs to permit the complete draining of water from pump. Pump will be similar to "J X" house force pump shown in Bulletin DX-11E, dated April 1, 1929, of the Fairbanks Morse & Company.

(c) The engine will be not less than 5 H.P. engine. It will be magneto equipped, easy starter, and will burn either gasoline or kerosene as fuel. Engine will be throttle governed so that with

Changes of load a practically uniform speed can be maintained. Engine will be water cooled with ample provision for cooling of cylinders and cylinder heads. Speed and power of engine will be such that capacity of pump will not be less than 425 gallons per hour. Engine will be similar to 2 H.P. throttling governor "Z" engine, Rotary high tension magneto equipped, shown on Page 4 of Bulletin H 245 G of the Fairbanks-Morse & Company.

(d) The tank will be a 420 gallon black pneumatic tank of riveted and welded construction, complete with water and pressure gauges. Tank will be guaranteed to withstand a working pressure of 150 pounds per square inch. Tank will be 36" in diameter and 8'0" long. Tank will be similar to tank shown on Page 25 in Bulletin H-289-C of the Fairbanks-Morse & Company.

(e) The pump and engine will be set up on a concrete foundation on the westerly side of dwelling. Contractor will furnish and install complete a house which will completely enclose pump and engine and be weatherproof and substantial. House will be large enough for a man to operate engine and pump from within. Contractor will submit with bid description of cuts of house he proposes to furnish.

(f) There will be a well driven on the westerly side of dwelling at the proper location for connecting to the pump. Pipe will be 1-1/4" galvanized, fitted with a brass jacket drive well point, size and number of holes in point to be such that pump will easily and efficiently reach its rated capacity. Length of pipe necessary will be between 16 feet and 30 feet. Point will be similar to that shown on Page 53, Catalog K of the Gould Mfg. Company of Seneca Falls, New York.

9. BATH ROOM FIXTURES: In each bath room the contractor will furnish and install complete the following fixtures as per drawing 7529:

(a) Bathtub: The bathtub will be a one piece, built in, roll rim, porcelain enamel inside, iron corner bath on base for right or left hand corner as required, with outlet in exposed end, zinc white exterior finish, 5 feet long, width over rim 30 inches, depth inside 17 inches, fitted with nickel-plated brass compression double bath faucet and standing waste, with china indexed handles, similar to tub shown on Plate C-3360-R A of Crane Plumbing Fixture Catalog C - General Edition.

(b) Lavatory: Lavatory will be one piece, porcelain enameled iron, with 8 inch integral back, overflow and apron, slab size 18" by 21 inches, concealed hangers, equipped with china indexed lavatory faucets and lift waste complete with non-syphoning "S" trap and stops; similar to lavatory shown on Plate C-2540-S5 of Crane Plumbing Fixtures Catalog C - General Edition. All exposed pipes and fixtures will be nickel-plated brass.

and

(c) Water Closet: The water closet will be a white vitreous china noiseless syphon jet closet with top inlet, white vitreous china low tank with bottom supply, high pressure float valve, seamless copper float, rubber ball flush valve, double acting china side operating lever, china floor escutcheon, vitreous china flush pipe cover, china bolt caps, china handle stop valve, and all white open front full saddle seat and cover; similar to water closet shown on Plate C-10408 of Crane Plumbing Fixtures Catalog C - General Edition.

(d) Medicine Cabinet: One white enameled steel wall pattern medicine cabinet, fitted with three polished plate glass adjustable shelves and bevelled plate glass mirror, 16" by 20". It will be similar to cabinet shown on Plate C-26945 of Crane Plumbing Fixtures Catalog C - General Edition.

(e) Towel Bar: One nickel-plated brass towel bar, 5/8" by 24", similar to bar shown on Plate C-26802 of Crane Plumbing Fixtures Catalog C - General Edition.

(f) Shelf: One plate glass shelf, 5/8" by 5" by 24" with nickel-plate brass brackets and screws.

(g) Soap Holders: One nickel-plated brass soap holder, removable china soap dish, similar to Plate C-26556, and one soap holder for bathtub similar to Plate C-26460 of Crane Plumbing Fixtures Catalog C - General Edition.

(h) Toilet Paper Holder: One nickel-plated roll toilet paper holder, similar to Plate C-26606 of Crane Plumbing Fixtures Catalog C - General Edition.

(j) Radiators and Piping: A radiator will be installed in each of the bath rooms. It will be approximately 38" in height, five tubes, and not less than 20 sq. ft. The sections will be joined together with threaded nipples. Each radiator will be provided with one quick acting nickel-plated packless union valve and one nickel-plated union fitting and one air valve and key. The radiators will be connected to existing heating system in cellar of dwelling as shown on Drawing 7529. The supply and return pipes will be of the same size, standard weight, lap welded, genuine iron pipe. Ends of pipe and pipe nipples will be reamed. Reducing couplings and fittings will be required for connecting pipes of different sizes. Where pipes pass through floors, ceilings, wall and partitions there will be pipe sleeves of suitable size as per Drawing 7529. All exposed pipes in rooms will be straight and will stand properly. Fittings will be of gray iron castings with heavy rectangular beads, clear threads, tapped to gauge and true. All horizontal pipes will be suspended from ceiling with substantial iron rings and hangers. Supply and return pipes in the cellar, installed by the contractor will be covered with moulded asbestos sectional covering, held in place by canvas jackets and brass lacquered bands. All L's and T's will be covered with plastic asbestos cement and covered with canvas. All pipes above cellar showing in rooms and hall and all radiators will be painted one coat of flat gray paint made from white lead paint and lamp black and one coat of aluminum bronze, applied in the best manner after the surfaces have been properly cleaned and are in good condition. Nickle-plated valves and fittings will not be painted.

10. RANGE BOILER, SINKS, AND LAUNDRY TUBS: In each of the three kitchens the contractor will furnish and install complete the following, as shown on Drawing 7529:

(a) Range Boiler: A forty-gallon capacity hot water range boiler measuring 14 inches in diameter and 60 inches long with five regular tappings, constructed of extra heavy galvanized iron with welded seams, to withstand a working pressure of 150 pounds, per square inch, and be so guaranteed. The cold water pipe inside the boiler will be galvanized. The boiler will be set on an iron stand and be equipped with suitable brass unions and shut-off valves so it can be readily removed without disturbing the adjacent piping. At the bottom of the boiler there will be a 3/4 inch sediment pipe fitted with a roundway water sediment hose cock for flushing.

(b) Waterback: Each kitchen range will be fitted with a waterback. The stoves and manufacturers of same are as follows:

Two Magnetic, Model 818 - Southard-Robinson Company,
New York City.
Barstow, Model 18-24 - Stove Repair Corporation,
New York City.

(c) Sink: Sink will be galvanized cast iron, 20 inches wide, 30 inches long and 8 inches deep, with roll rim, 8 inch integral back, and concealed wall hangers, two galvanized front legs, removable perforated strainer, a [illegible] inch trap, and a nickel-plated indexed compression flange bibbs. The galvanized cast iron drain board will be 13 inches wide and 23 inches long with roll rim and supporting brackets.

(d) Tubs: The laundry tubs will be two part soapstone laundry trays with galvanized iron legs, sheet metal hinged covers; size of tray to be 54 inches overall, 24 inches wide and 16 inches deep, with brass "P" trap; similar to Plate 9530 and Plate 9552 of the Mason Manufacturing Company Catalog #16.

11. COLD AND HOT WATER PIPING:

(a) The cold and hot water pipes above the cellar will be brass, iron pipe sizes, standard weight, and all fittings and valves in lines will be of brass. Valves will be of the regrinding type with union bonnet. All exposed risers to fixtures will be nickel-plated.

(b) The general run and sizes of pipe in the system will be in accordance with Drawing 7529. All horizontal pipe in the system will be supported by strong, neat and substantial hangers. All the ends of pipe and pipe nipples will be reamed. Reducing couplings and fittings will be required for connecting pipes of different sizes. Where pipes pass through floors, ceilings, walls and partitions there will be pipe sleeves as per Drawing 7529. The sleeves will be of suitable size to allow the pipes to pass thru easily.

and

(c) The whole plumbing system when completed must be tested in accordance with the Building Code C of New York by the contractor in the presence of a representative of the Superin[illegible] houses and must show that all parts are perfect, tight, and free of defects. The system must work easily without noise and have a complete and uniform flow.

12. DRAINAGE:

(a) The general size and run of cast iron pipe will be as shown on Drawing 7529. The fall of the system will be not less than 1/4 inch to the foot. All horizontal pipes will be supported on suitable iron rings and hangers.

(b) The house drain will be extra heavy cast iron soil pipe. There will be cleanouts located as shown on Drawing 7529.

(c) The soil line will be four inch extra heavy cast iron soil pipe run as per Drawing 7529. Soil line is to be fitted with a watertight adjustable copper roof flasher.

(d) Joints between cast iron pipes or fittings will be made with a picked oakum gasket and pig lead; joint will be run full at one pouring and caulked solid, flush with hub.

(e) All vents and drains from fixtures will be galvanized wrought iron and fittings will be drainage fittings of same material.

(f) Contractor will install system in accordance with the Plumbing Rules in the New York City Building Code, except where Drawing 7529 and these specifications differ from same.

13. SEWAGE DISPOSAL SYSTEM:

(a) A sewage disposal system capable of complete disposal of sewage from dwelling, being designed for 1[illegible] persons, will be installed on southerly side of dwelling, all labor and material for same being furnished. Chemicals will not be used in system. System will be provided with proper facilities for easy cleaning and removal of sludge. System will provide for a septic tank capacity not less than 60 gallons per person. Filter bed of 4 inch vitrified clay sewer pipe, laid with 1/4" open joints in a trench of screened gravel one foot deep by eighteen inches wide, will be used to dispose of effluent. Top of screened gravel trench will be covered with a layer of tar paper over which not less than one foot of sand will be placed. Filter bed will consist of not less than 400 feet of trench and tile pipe laid in manner described herein. Branches of filter bed will not be closer than 8'0" on centers. Main line of filter bed will be of 4" vitrified salt glazed, hub and spigot sewer pipe laid with tightly cemented joints.

(b) Septic tank will be installed not closer than 15 feet to southerly side of dwelling. Open jointed filter bed will be not less than 5 feet south of septic tank.

and

(c) Sewage will be delivered to septic tank by a 6" vitrified salt glazed, hub tile line run through the pier for a distance of approximately 3[illegible] feet and thence underground to septic tank, total length of tile line from dwelling to septic tank being approximately 150 feet and joints will be tightly cemented. Tile line from dwelling to septic tank will be not less than two feet underground at any point.

(d) The soil is made up entirely of a beach sand.

(e) The system will be the same as or similar to systems installed by the American Sewage Disposal Company, Inc., of 101 Park Avenue, New York City.

(f) The system must operate efficiently and sanitarily and be so guaranteed by the contractor.

(g) Bidders will furnish cuts, design and full description of system they propose to use.

14. MATERIALS AND WORKMANSHIP:

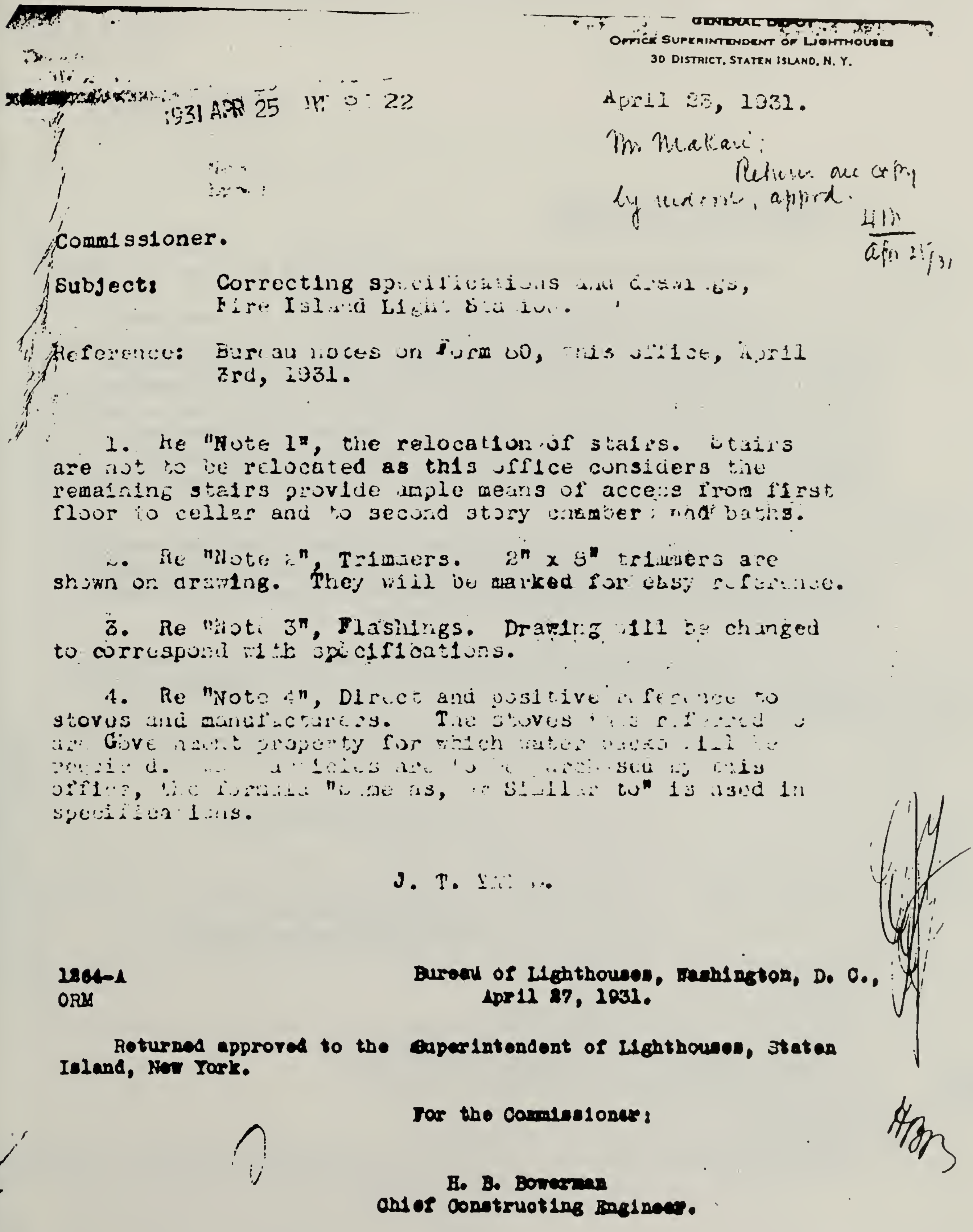
(a) All materials and workmanship must be of the best quality of their respective kinds and all work must be done in a neat, thorough, and workmanlike manner and comply with the New York City Building Code, except where these specifications and Drawing 75[illegible]9 differ from same.

(b) Contractor will leave the premises in as good condition as he finds them. All rubbish accumulating as a result of this work will be removed from the Station by the contractor.

(c) If the contractor proposes to furnish anything different than that called for in this specification, a cut and description of the proposes article will accompany the bid.

(d) A representative of the Superintendent of Lighthouses, Staten Island, New York, will inspect all materials and workmanship and the contractor or his authorized agent must be present at the site while the work is in progress.

15. PAYMENT: Payment for the work specified will be made as follows: 97% of the contract price on the completion of the work as specified and the receipt of properly certified bills. The balance 3% of the contract price will be paid at the expiration of the 90 day guarantee of the work or when the conditions thereof have been fulfilled.



GENERAL DEPOT
OFFICE SUPERINTENDENT OF LIGHTHOUSES
3D DISTRICT, STATEN ISLAND, N. Y.

1931 APR 25 AM 9 22

April 23, 1931.

Mr. [illegible]:
Return one copy by [illegible], approved.
[illegible]
Apr [illegible]/31

Commissioner.

Subject: Correcting specifications and drawings, Fire Island Light Station.

Reference: Bureau notes on Form 60, this office, April 3rd, 1931.

1. Re "Note 1", the relocation of stairs. Stairs are not to be relocated as this office considers the remaining stairs provide ample means of access from first floor to cellar and to second story chamber and baths.

2. Re "Note 2", Trimmers. 2" x 8" trimmers are shown on drawing. They will be marked for easy reference.

3. Re "Note 3", Flashings. Drawing will be changed to correspond with specifications.

4. Re "Note 4", Direct and positive reference to stoves and manufacturers. The stoves [illegible] referred to are Government property for which water backs will be required. When articles are to be purchased by this office, the formula "Same as, or Similar to" is used in specifications.

J. T. [illegible]

1264-A
ORM

Bureau of Lighthouses, Washington, D. C.,
April 27, 1931.

Returned approved to the Superintendent of Lighthouses, Staten Island, New York.

For the Commissioner:

H. B. Bowerman
Chief Constructing Engineer.

1264E

July 18, 1932.

Superintendent of Lighthouses,
Staten Island, New York.

Fire Island Light Station lens - Your form 80, July 11, 1932.

1. The Bureau directs attention to the length of flash which will be provided by the modified Shinnecock lens. The old Light Lists carry this information as being 0.3 second. This is apparently in error as the 55 mm I.O.V. lamp in a 1st order lens making 1 revolution in 15 seconds should produce a flash of only about 0.13 second. With this fact in mind the Bureau wishes to be advised if you consider such a short flash satisfactory for Fire Island Light Station and whether any complaints of the short flash of the old Shinnecock light are on record.

2. The Bureau has no information in regard to the lens formerly at Shinnecock Bay Light Station except that given in the Light Lists so it is unable to visualize how the mirrors mentioned could function with the flash panels arranged as indicated.

3. It will be noted that the eclipse period of 3.75 seconds in paragraph 10 of your form 80 apparently should be 3.4 seconds to agree with paragraph 3.

4. Action on your form 80 will await your further advice.

For the Commissioner:

7/18-32

H. B. Bowerman
Chief Constructing Engineer.

GBS:CRM

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

1264E

Form 80
DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

RECOMMENDATION AS TO AIDS TO NAVIGATION

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES Third DISTRICT.
Staten Island, N.Y.
July [illegible], 1932.

OCL:TM

THE COMMISSIONER OF LIGHTHOUSES:

The following recommendation is submitted for the consideration of the Bureau:

1. Name of aid: Fire Island Light Station, New York.
2. Locality: Near the westerly end of Fire Island, easterly side of Fire Island Inlet.
3. Proposed action: Replace the present lens and apparatus with a more efficient lens and apparatus and change the period of light from Fl.W.60 sec. to Fl. 7-1/2 sec. and the characteristic of light from Flash 5 sec., eclipse 55 sec. to flash 0.27 sec., eclipse 7.23 sec., with no change in candlepower.
4. Necessity: The present apparatus is of obsolete type and is beyond [illegible] it has been giving trouble for several years and has now reached the point where replacement is necessary.
5. Total estimated cost: [illegible]
6. Appropriation: [illegible]
7. Payment: To be made from funds allotted. heretofore
8. Maintenance estimated. annual cost: no change
9. Authority is also requested to purchase the material needed, and not now on hand, at an estimated cost of $ 500. , in accordance with law and regulations, and to do the work by contract --- bond, $ --- ; hired labor and depot force. $ 2500. ; crew of vessels, $ --- . This method of performance being considered the cheapest and most advantageous to the service.

(If it is proposed to do the work partly or wholly by hired labor rather than by contract, give reasons therefor under Item 10.)

Most economical and advantageous method. It is proposed to transfer the lens and mercury float apparatus from the discontinued Shinnecock Bay Light Station to Fire Island Light Station

10. Description, location, and other information: after modifying the lens and apparatus from two groups 3-45° flash panels and two 45° blank panels to 4 single 45° flash panels and four 45° blank panels spaced alternately 90° on centers. Character and period of light: Fl. 7-1/2 sec., flash 0.27 sec. eclipse 7.23 sec., lens to make one revolution in 30 seconds. It is also proposed to fit up and use a 4th order lens and apparatus with 55 m.m. I.O.V. lamp in lantern at this station while the change in apparatus is being made, light to have the same character and period as at present, Fl.W.60 sec., light 3 seconds, eclipse 57 seconds. The mirror which formed a part of the Shinnecock Bay Light equipment cannot be used at Fire Island, therefore there will be no change in candle-power for Fire Island Light.

J.T.YATES, Superintendent.

B.

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES
Washington, July 28, 1932

Returned to the Superintendent of Lighthouses, approved as recommended, except as noted. You will proceed with the work and report its status, until completed, in your Monthly Report of Operations.

Your letter of July 22, 1932, has been noted.

H. D. KING,

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50, File 1264-E

APPENDIX C146.

- 64 - E

THE FRANKLIN INSTITUTE
OF THE STATE OF PENNSYLVANIA
PHILADELPHIA : : : PENNA.

OFFICE OF THE MUSEUM STAFF

October 27, 1933.

14

Dear Mr. King:

In setting up the Fire Island Lighthouse in our new building, the question has been raised by several people who have examined it in a preliminary sort of way, as to its location and one thing and another.

From the Light List of the Atlantic Coast, for 1932, I have been able to secure a fairly complete description and in addition I have secured a Geodetic Survey map which shows its location. However, a good photograph, I believe, would be desirable, and in looking over some of the older lists of lights I have run across a photograph by N. L. Stebbins, copyrighted in 1895 and shown in reproduction on plate 15 of the 1907 list.

If you are familiar with any more recent photograph than this and one showing the light at closer range, I should be very glad to have you advise me where an original print from the negative can be obtained.

With the information from the lists, the photograph and the map, I believe that our exhibit will be complete.

Anything that you can do for me in this particular would be very much appreciated.

Very truly yours,

Henry S. Harris

Henry S. Harris
Assistant Associate Director-Engineering.

Mr. H. D. King,
Deputy Commissioner,
Bureau of Light Houses,
Department of Commerce,
Washington, D.C.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

F

NX1L, N1-13(370412)
R

DEPARTMENT OF THE NAVY
OFFICE OF THE SECRETARY
WASHINGTON

1564 E

MAY 2[illegible] 1937

ack. Sec. Nav

Sir:

Reference is made to the permit, dated March [illegible], 1908, from the Light-House Board, Department of Commerce and Labor, whereunder the Navy Department was authorized to use a part of the Fire Island, New York, Light Station Reservation for a wireless station. Under said permit a tract of land 500 feet square, near the northeast corner of the Lighthouse Reservation, was selected as a site for said wireless station, and it is now used as the site for a Radio Direction Finder of the Navy, known as the Radio Direction Finder Station, Fire Island, New York.

The area heretofore used is inadequate for the needs of the Radio Direction Finder Station, and the construction of a proposed New York State highway across the Lighthouse reservation, unless located sufficiently far enough south of the Radio Direction Finder Station, may interfere with the proper functioning of the instruments installed thereat. Therefore, the Navy Department desires to extend the boundaries of the Radio Direction Finder Station northward to the meander line, at low water, of Great South Bay, southward a distance of 500 feet, and westward a distance of 100 feet. It is understood that the Bureau of Lighthouses, Department of Commerce, has no need for said land.

The metes and bounds of the additional area desired by the Navy are:

> Beginning at a point where the mean low water mark of Great South Bay is intersected by a line running from Stone Post B situate on the line between the land of the Lighthouse Reservation and the land of the New York State Park Commission and Stone Post A on said line, projected; thence running 82° 48' 43" E, a distance of 100 feet, more or less, to said stone Post A; thence continuing along the same course, S2° 48' 43" E, a distance of 250 feet, to the northeast corner of the land now occupied by the Navy Department's Radio Direction Finder Station at Fire Island, New York; thence running S87° 11' 17" W, a distance of 500 feet; thence running S2° 48' 43" E, a distance of 500

NX11/N1-13(370412) 2.
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1564

feet, thence running N87° 11' 17" E, a distance of 500 feet, to the first mentioned course, projected; thence running S2° 48' 43" E, along the first mentioned course, projected, a distance of 251.62 feet, to said Stone Post B; thence continuing along the same course, S2° 48' 43" E, a distance of 248.38 feet; thence running S87° 11' 17" W, a distance of 600 feet; thence running N2° 48' 45" W, a distance of 1205 feet, more or less, to mean low water mark of Great South Bay; thence following the meander line of mean low water mark of Great South Bay, in a general direction of N78° 19" E, a distance of 620 feet, more or less, to the point of beginning.

The metes and bounds of the whole area desired by the Navy Department for its Radio Direction Finder Station, Fire Island, New York, which includes both the land now occupied and the above described area, are:

Beginning at a point where the mean low water mark of Great South Bay is intersected by a line running from Stone Post B situate on the line between the land of the Lighthouse Reservation and the land of the New York State Park Commission and Stone Post A on said line, projected; thence running S2° 48' 43" E, a distance of 100 feet, more or less, to said Stone Post B; thence continuing along the same course, S2° 48' 43" E, a distance of 1001.62 feet to said Stone Post A; thence continuing along the same course, S2° 48' 43" E, a distance of 248.38 feet; thence running S87° 11' 17" W, a distance of 600 feet; thence running N2° 48' 43" W, a distance of 1205 feet, more or less, to mean low water mark of Great South Bay; thence following the meander line of mean low water mark of Great South Bay, in a general direction of N78° 19" E, a distance of 620 feet, more or less, to the point of beginning.

It is requested that, if not inconsistent with the policy of the Department of Commerce and the needs of the Bureau of Lighthouses, the area last above described be transferred to the exclusive jurisdiction and control of the Navy Department.

APPENDIX C147.

NX11/N1-13(370418)
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3.

1264E

Due to the urgent need of the Navy securing adequate protection against interference with the proper functioning of the instruments installed at the Radio Direction Finder Station, Fire Island, New York, that may happen if the proposed New York State Highway is located too close to said Station, it is requested that the Department of Commerce issue to the Navy a permit for the use of the area first above described.

Respectfully,

Claude A. Swanson.

The Honorable
The Secretary of Commerce
Washington, D. C.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

APPENDIX C148.

RGL:AJM

LIGHTH SES
14 8 43 '38

Form 80
DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

RECOMMENDATION AS TO AIDS TO NAVIGATION

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES Third DISTRICT.
Staten Island, New York
January 13, 1938

1264 A

THE COMMISSIONER OF LIGHTHOUSES:

1. Name of aid: Fire Island Light Station
2. Locality: Seacoast, South side of Long Island
3. Proposed action and necessity therefor: Renew roof covering and replaster halls and two rooms. Wood shingles are decayed and plaster is loose and falling off walls.
4. Total estimated cost: $2,287.69
5. Appropriation: G.E. 1938
6. Payment: To be made from funds allotted.
7. Estimated annual maintenance cost: Same as heretofore
8. Authority is also requested to purchase the material needed, and not now on hand, at an estimated cost of $2,287.69, and to do the work by contract with bond, $ 2,287.69; hired labor and depot force, $ ---- ; crew of vessels, $ ----- This method of performance is considered the most economical and advantageous to the service.
   (If it is proposed to do the work partly or wholly by hired labor rather than by contract, give reasons therefor under Item 9)
9. Description, location, and other information:

Cal

The existing wood shingle roof is decayed and shingles are blowing off the roof. It is proposed to renew the roof covering with red asphalt shingles. The plaster on the halls of the 1st and 2nd stories and on the walls of the bedroom and kitchen of the Assistant Keeper is loose and needs to be renewed.

ITEM NO. 37 on the List of Repairs and Improvements Other Than Maintenance Repairs to Vessels, of General Expenses, Lighthouse Service, 1938.

38

FORM 80a attached.

J. T. Yates

J.T. YATES, Superintendent.

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES
Washington, January 15, 1938

C

Copy returned to the Superintendent of Lighthouses, approved as recommended, except as noted. You will proceed with the work and report its status, until completed, as required by regulations or instructions.

C.A.PARK,

Acting Commissioner.

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-A

11—4035

APPENDIX C148.

RGL JM

Form 83

ESTIMATE OF COST OF PROPOSED WORKS

LIGHTHOUSES
JAN 14 8 47 AM '38

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

NAME OF AID: Fire Island Light Station

PROPOSED WORK: Renew roof covering and replaster two rooms and halls.

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES 3rd DIST.
Staten Island, New York
January 13, 1938.

	ITEMS, QUANTITIES, AND UNIT PRICES	AMOUNT
1.	Tear off old roof covering and renail sheathing.	$ 240.00
2.	200 lbs. of 10^d galvanized wire nails @ .06½ a lb.	13.00
3.	300 lineal feet of gutter and cornice in place @ .53	159.00
4.	Labor installing gutter and cornice.	112.00
5.	Tearing down and rebuilding two chimneys.	120.00
6.	36 rolls of asphalt saturated felt @ $1.32.	47.52
7.	400 lbs. of Bituminous Plastic Cement @ .04½	17.33
8.	300 lineal feet of 16 oz. copper chip edge.	45.00
9.	Lead and copper flashings.	45.00
10.	100 lbs. copper roofing nails @$0.30.	30.00
11.	160 lineal feet of copper ridge roll @ .40.	64.00
12.	160 lineal feet of spruce ridge pole @ .10.	16.00
13.	36 square asphalt shingles @ $8.25.	297.00
14.	Labor installing roof, 30 days @ $14 per day.	420.00
15.	10 tons of plaster @ $16.00 per ton.	160.00
16.	14 days labor installing plaster, @ $27.36 per day.	383.04
17.	6,000 laths @ one-half cent ($.00½)	30.00
18.	6 days labor installing laths @ $14.00 per day.	84.00
19.	60 lbs. of 3^d lath nails @ $.08 per lb.	4.80
	Total	$2287.69

Estimate prepared by [illegible].G. LAMB

Form
DEPARTMENT OF COMMERCE,
LIGHTHOUSE SERVICE.

HB:AJM

CONTRACT FEATURES.

Draft

Office of Superintendent of Lighthouses, Third *District.*
Staten Island, New York

DATA FOR PROPOSED CONTRACT FOR Repairs to Fire Island Light Station
(Purchase of supplies, repair, or construction work.)

ON ACCOUNT OF FORM 80, DATED January 13, 1938

1. Form to be used, No. 21, edition of November 19, 1926
2. Guaranty or certified check for $ 10%
3. Bond required with contract, $ 50%
4. Damages for delay { Liquidated * Yes / Actual } $ 3.00 per day plus 1/10 of 1% of contract price. (minimum $6.00)
5. Time and place of opening bids. General Depot. Time not yet set.
6. Place of delivery. Fire Island Light Station.
7. Terms of payment. 30 days (see specifications)
8. Contract period. To be quoted by bidder.
9. Additional quantity clause none per cent more or less.
10. Hours of labor clause. included in Form 23.
11. Subcontracting clause. not to be used.
12. Failure to perform clause, ~~Form 120B~~. included in Form 23.
13. Standard or proprietary names clause. To be used.

This form shall be properly filled out and sent Bureau, in duplicate, with Form 80, in all cases in which contract, with or without bond, is to be entered into.

* If contract provides for two distinct objects, have separate rate for liquidated damages for each object; see Regulations 1918, art. 205, 3d par., page 82.

GL:AJM

U. S. LIGHTHOUSE SERVICE
SPECIFICATIONS FOR REPAIRS TO KEEPERS' DWELLIN AT FIRE ISLAND LIGHT STATION, FIRE ISLAND, N.Y.

D64[illegible]

1. WORK TO BE DONE: Remove existing wood shingles and flashings from the roofs of the three-family Keepers' dwelling and hallway to tower, reshingle with slate covered asphalt shingles; demolish four and rebuild two chimneys and replaster the 1st floor entry hall, the 2nd floor hall, the southeast kitchen and the bedroom in the south ell.

2. LOCATION OF STATION: Fire Island Light Station is located near the westerly end of Fire Island, easterlyside of Fire Island Inlet, about 1 1/2 miles from Saltaire, Fire Island. It is accessible to boats of light draft. Bidders are advised to visit the station to ascertain conditions and obtain data for estimating the cost of work to be done.

3. REMOVING OLD ROOF COVERING: The contractor is to completely remove the old roof coverings over the main roof, the two ells, and the areaway. The boarding on all roofs is to be cleared of all protruding nails and renailed with two 10^d galvanized nails at each bearing. All cracks or holes in the boarding are to be filled to make a tight boarded roof.

The two chimneys on the ells are to be demolished to the underside of the roof, and the hole in the roof is to be tight boarded.

The two chimneys on the main roof are to be torn down to the attic floor and rebuilt to the existing dimensions. All flashings, gutters, cornice, and facia are to be removed as hereafter specified.

During the repairs to these roofs, the contractor must do the work in such manner and keep the roof so covered as to prevent any injury by leakage to the building or contents stored therein.

4. GUTTER: The ends of the rafters are to be cut off plumb to furnish nailing for a 4x5 fir gutter. The fir gutter is to be securely nailed to the ends of the rafters. A shingling facia of 7/8" white pine or cypress, beveled to fit under the shingles and halved over the top side of the gutter is to be nailed to the ends of the rafters on the top of the gutter. A 7/8" white pine or cypress facia made with a tongue to fit the groove in the bottom side of the gutter is to be nailed to the ends of the rafters below the gutter. The new work is to be joined to the old work in a neat and workmanlike manner. The ends of the gutter are to be closed with a block covered with 4 lb. Sheet lead extending out from the end four inches and up under the shingles 2 inches.

All joints in the gutter to be mitred and covered with 4 lb. sheet lead let into the gutter and extend 1-1/2 inches either side of joint, bedded in white lead and securely nailed with brass escutcheon pins.

There are to be outlet tubes of 8 pound, 4" diameter, lead tubes to connect with leaders.

The ends of the gutter are to be covered by the rake moulding on the gable ends, which is to match the shape of the gutter. The rafters are to be reinforced and realigned where they are sagging and where decayed, by 2" x 8" blocks, 36" long, securely nailed. The existing rake moulding may be reused if it matches the wood gutters furnished, otherwise a new rake moulding and cornice moulding is to be furnished by the contractor.

All the outside finish except the gutter is to be of clear, well seasoned dry white pine or cypress, properly secured in place with galvanized iron nails properly set and painted two coats of white lead and boiled oil

The leaders, located as at present, are to be 4" in diameter, of 16 ounce copper, securely fastened and brought to within six inches of the ground. The abutting ends of the leader sections are to be lapped and soldered. At the opening of the gutter into each leader a brass wire cage is to be provided to keep the foreign matter from entering the leader.

5. ROOF: All roofing surfaces and sides of skylight to be covered with 30 lb. roofing felt with all edges lapped 4" and cemented. This includes cementing to sheathing on eaves and rakes, and on hips and valleys for at least one foot from the edge or corner. Roof felt is to be applied not more than 4 days before shingles are laid thereon. On the roofing felt is to be laid by the American method red slate surfaced asphalt shingles 12" x 16", equal in quality to Super Giant shingles manufactured by Flintkote Co. Shingles to conform to the requirements of Federal Specification No. 296 for the slate surfaced asphalt shingles. The color is to be similar to a sample in this office. Shingles are to be laid not more than 5 inches to the weather with a 6 inch headlap. A 16 oz. copper drip edge 8" wide is to be attached with copper slate nails along the eaves beneath the shingles. Start the roof by laying a mineral surface starting roll along the eaves over the drip edge. Starting roll is to be at least 18 inches wide.

Over the starting roll lay two courses at the eaves, one directly on top of the other but breaking joints one-third shingle. After the first or double course is laid the shingles are to be laid with a five inch exposure always breaking joints one-third shingle. Shingles are to be spaced not more than 3/4 inches apart. Nails are to be 1-1/2 inch copper nails with heads not less than 7/16 inch diameter. Nail shingles six inches from the butt end and not more than one inch from the side. Use two nails for each shingle.

All shingles on gables and where flashings are used are to be bedded in roofer's plastic cement. Plastic cement to be equal in quality to "Elastigum", manufactured by the Barrett Company.

6. FLASHINGS AND RIDGES: The ridge and hips of all roofs are to be fitted with 2" x 3" Spruce ridge pole rounded to 1-1/2" radius, on top of which is to be installed a copper ridge roll 3" diameter with 3" flanges on each side, as per sketch No. 584. Ridge roll to be made from 16 ounce copper plate with ends stopped and soldered. Joints to be lapped two inches and set in roofing cement. Ridge roll to be set in roofing cement and fastened with 1-1/4" round head brass screws spaced 12 inches on centers. Flashings in valleys are to be of No. 24 B & S gauge sheet copper 12" x 12" bent diagonally, corner to corner, and lapped 6 inches. Where roof abuts tower and other walls, they are to be step flashed with No. 24 B & S gauge sheet copper, flashing to extend at least 4" under shingles and at least 4" up the vertical wall. Counter flashing is to be built 2" into the wall. Connection between chimney and roof is to be made with sheet lead cap and base step flashing arranged to allow for any vertical or lateral movement between chimney and roof. The Chimney flashings are to be of 4 lb. per square foot sheet lead.

7. CHIMNEYS: The two chimneys on the main roof are to be demolished to the attic floor and rebuilt to the existing dimensions. The chimneys are to be built of a double course of hard burned brick laid in the best manner around fire clay flue linings. All bricks to be laid on full cement-lime mortar beds. All joints to be full and all spaces between brick and flue lining to be slushed full of mortar as each course of brick is laid. These chimneys now have four flues, but when rebuilt the Keeper's chimney is to have a flue for the kitchen range and a flue for the heater. The Assistant Keeper's chimney is to have a flue for the heater and a flue for each kitchen range. The rest of the chimneys are to be built solid.

Bricks from the old chimneys may be used so far as they may go in rebuilding chimneys. The balance of the bricks required for completing the work are to be of the same quality and color as those in the existing work and are to be furnished by the contractor.

Flue lining to be standard hard burned clay lining, rectangular in shape, and free of all defects. To be of the same size as the existing flue.

The mortar is to be a mixture of one part cement, two parts clean sharp sand, and five pounds hydrated lime powder to 1 bag mix. Bricks are to be laid on full beds of mortar, All joints to be filled and the space between bricks and flue lining slushed full of mortar as each course is laid.

8. LATHING AND PLASTERING: The plaster and laths on the walls and ceilings in the halls on first and second floor (but not including the hallway to tower) the southeast kitchen, and the bedroom in the south ell, are to be removed. This work is to be done in such a way as to cause the Keeper the least possible inconvenience. The walls and ceilings of the above enumerated rooms and halls are to be relathed. Shims are to be used under the laths wherever necessary to insure smooth and straight surfaces.

Laths are to be spruce laths 3/8" by 1-1/2" by 4'-0" spaced a full 1/4" apart, with joints broken every 8 laths. Each lath is to be securely nailed to all bearings with 3 penny fine galvanized wire nails.

Around chimney and in back of stove, walls to be filled walls as specified by Fire Underwriters.

The plaster is to be a compound equal in quality to Red Cap Sanded Plaster. It is to be applied in two coats; a scratch coat well trowelled to insure strong clincher, and scratched to roughen the surface for bonding with the second coat, which is to be laid on true and straightened to a minimum thickness of 3/8" outside the laths; the second coat is to be hand floated to produce an approximately smooth surface. The completed work must be free from season or other surface cracks. No finishing coat of any kind is to be used. Galvanized rib steel corner bead are to be used on all outside corners.

9. GENERAL CONDITIONS: All materials used on the work herein specified are to be the best of their respective kinds, and all work done in a neat, thorough and workmanlike manner.

10. GUARANTEE: The new roofs must be guaranteed to be absolutely weather and water-tight.

The contractor must guarantee all material and workmanship and replace all defective work without cost to the Government for a period of ninety (90) days from date of acceptance.

11. INSPECTION: A representative of the Superintendent of Lighthouses, Staten Island, New York, will inspect all materials and workmanship. The contractor must be present at the site or be represented by an agent authorized to act for him while the work is in progress.

12. PAYMENT: Payment of 90% of the contract price will be made within thirty (30) days after reroofing has been satisfactorily completed and the remaining 10% to be paid after ninety (90) day test has proven that the new roof meets the requirements of the guarantee. Each payment will be contingent upon submittal by contractor of properly certified bill in duplicate.

APPENDIX C148.

Form 97
HB:NP

REQUEST AND AUTHORITY TO PURCHASE

LIGHTHOU S
APR 2 8 39 AM '38

12640

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

11 *original bids inclosed.*

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES, 3rd DISTRICT

The Commissioner of Lighthouses: Staten Island, N.Y., April 1st, 1938

Authority is requested to purchase, at the prices stated, the articles or services named below, by Method "A", printed hereunder, as provided for in section 8 of the act of June 17, 1910. The original bids received are inclosed herewith.
Proposals were sent to 49 dealers, and public advertising was performed as shown on papers attached.
A copy of the ~~bid recommended for acceptance, with specifications, plans, etc., and~~ abstract of the bids received, is attached hereto for the files of the Bureau.
The price is considered reasonable, not in excess of current market rates, and advantageous to the Government.
Payment is to be made as shown below. The return of the original bids, etc., is requested.

J. T. Yates
J. T. Yates, *Superintendent of Lighthouses.*

METHOD OF PURCHASE.

A. Under contract with bond, after public advertisement for proposals.
B. Under contract, without security, after public advertisement for proposals.
C. In the open market, after obtaining prices and making written or verbal agreement, without public advertisement for proposals, immediate delivery being required by an exigency of the service.

QUANTITY	PURPOSE AND DESCRIPTION OF ARTICLES OR SERVICES	ESTIMATED COST Dollars	Cents
	Furnishing all labor and materials and performing all work required for renewing roof on dwelling, and replastering first and second floor halls and two rooms at Fire Island Light Station, Fire Island, New York............................	$2413.	00
	plus Additional Work Items, if and as ordered; not to exceed..............	50.	00
		$2463.	00
	THE ENGLISH CONSTRUCTION CO., INC.		
	Form 80 dated 1/13/38; approved by Bureau 1/15/38.		

(Use additional plain sheet if extra space is required)

TO BE PAID FROM FUNDS:	APPROPRIATION:
Allotted	G.E. 1938

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES, WASHINGTON

.... *inclosures.*

Submitted to the Secretary of Commerce, with recommendation that authority be granted to expend the above-estimated amount for the purpose and by the method of purchase indicated, accepting the bid of

Approved:

Commissioner of Lighthouses.

Acting Secretary of Commerce.

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES, WASHINGTON

Set *inclosures.* April 4, 1938.

Returned to the Superintendent, approved as recommended, except as noted. Payment to be made as shown above.

As it does not appear that the provision quoted in Procurement Division Circular #45 was included in this proposal, you are requested to inform the English Construction Co., In in accepting their bid as to the provision quoted in Bureau unnumbered circular dated March 21, 1938.

For the Commissioner:
R. R. TINKHAM

1204a

ABSTRACT OF BIDS

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

Proposal No. [illegible]

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES, [illegible] DISTRICT

Staten Island, N.Y. [illegible] 193

ABSTRACT OF BIDS opened at [illegible] *M. on* [illegible] 193

[illegible]

for [illegible] 2 rooms [illegible]

NAME OF BIDDER	AMOUNT OF BID	DISCOUNT	NET BID	TIME COMPLETION OR DELIVERY (DAYS)	TIME FOR ACCEPTANCE DAYS	REMARKS QTY	REMARKS PLASTER
Keystone Contr.Co.	[illegible]170.00	--		15 80	--	BB	Red Cap
Oscar White & Sons	[illegible]441.00	--		10 30	--	BB	Red Cap
C.Parash	[illegible]880.00			5 80	60	CC $280.	US Gypsum
Louis Conacchio	[illegible]740.00			7 40		--	Red Cap
Fisher Bros.Contr.	[illegible]780.00			20 20	10	BB	US Gypsum
P.J.Flynn	$560.00			6 58		CC $780.	Kings Wind
Selco Builders	[illegible]784.00			51 120		CC $228.40	US Gypsum
Leo Vodopia	[illegible]195.00			-- --		BB	US Gypsum
English Constr.Co.	[illegible]415.00			90 50		CC $730.	Red Cap
J.Braun Constr.Co.	[illegible]526.00			1 30		BB	Red Cap
Chester Constr.Co.	4945.00			80 140		CC $515.70	Red Cap

PUBLIC NOTICES WERE POSTED AND PAID ADVERTISEMENTS WERE INSERTED IN PUBLICATIONS, AS SHOWN HEREON OR ON SHEET ATTACHED.

I recommend this contract be awarded to THE ENGLISH CONSTRUCTION CO. as the lowest bid received and a reasonable figure.

R. G. LAMB

OI/F.H.O. 3/31

AWARD OR RECOMMENDATION:

BIDS OPENED IN THE PRESENCE OF:

TM

JHS:RG
5/15/36

PUBLIC NOTICE SENT TO:

Postmaster, at:
  New York City
  Brooklyn, N. Y.
  Jersey City, N. J.
  Staten Island, N. Y.

Lighthouse Depot Bulletin Board

F. W. Dodge Corp.,
119 W. 40th Street,
New York, N. Y.

The Dow Service,
1289 Graybar Bldg.,
43rd St. & Lex. Ave.,
New York, N. Y.

M. F. McDonald, Inc.,
391 Fulton Street,
Brooklyn, N. Y.

Aetna Casualty & Surety Co.,
100 William Street,
New York, N. Y.

Aetna Casualty & Surety Co.,
339 Investment Bldg.,
Washington, D. C.

U. S. Government Advertiser,
Washington,
D. C.

Hartford Accident & Surety Co.,
Washington,
D. C.

Fidelity & Deposit Co. of Md.,
Washington,
D. C.

Maryland Casualty Co.,
Washington,
D. C.

The U. S. Service Bureau, Inc.,
1212 Woodward Bldg.,
Washington, D. C.

Mfrs. & Contrs. Digest,
~~Tower Building,~~ 911 Barr Bldg.,
Washington, D. C.

Federal & Municipal Proposals,
150 Lafayette Street,
New York, N. Y.

American Surety Co.,
Southern Building,
Washington, D. C.

Federal Bonding Dept.,
Bond Building,
Washington, D. C.

Manufacturers' Record,
Baltimore,
Maryland.

ADDRESS ALL COMMUNICATIONS TO
SUPERINTENDENT OF LIGHTHOUSES
STATEN ISLAND, N. Y.
HB:JJH

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

1264a

GENERAL DEPOT
OFFICE SUPERINTENDENT OF LIGHTHOUSES
3D DISTRICT, STATEN ISLAND, N. Y.

April 15th, 1938

Apr 18 8

Commissioner:

SUBJECT: Contract for renewing roof, replastering two halls and two rooms, etc. at Fire Island Light Station

REFERENCE: Contract No. C3a 4687 - Proposal 56217

1. Transmitted herewith for approval are triplicate copies of the above contract with The English Construction Co., Inc., for renewing roof, replastering two halls and two rooms at Fire Island Light Station, Fire Island, N.Y.

2. I hereby certify that the three copies have been compared and are exact counterparts of one another.

3. Forwarded herewith is one copy of Standard Form 1036, Statement and Certificate of Award, together with two copies of Form 114a, Abstract of Bids.

J. T. YATES,
Superintendent

- -

Bureau of Lighthouses, Washington, D. C.,
April 30, 1938.

6

Returned to 3rd Superintendent. Enclosed for your files is an approved copy of the above mentioned contract. The original has been forwarded to the General Accounting Office.

For the Commissioner:

K. S. GILES
Chief, Law & Property Division.

FBW
Encls.

[illegible]

LIGHTHOUSES
JUN 12 2 22 PM '38

Form 1
DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE
HEL:AK

RECOMMENDATION AS TO AIDS TO NAVIGATION

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES

3rd DISTRICT
Staten Island, N.Y.,
June 7, 1938.

1264 E

THE COMMISSIONER OF LIGHTHOUSES:

1. Name of aid: Fire Island Light Station,(733)
2. Locality: Seacoast, Long Island, off Bayshore, New York.
3. Proposed action and necessity therefor: Change light from IOV to electric incandescent Commercial electricity now available at station. ~~Increase~~ candlepower ~~from~~ 280,000 ~~to 500,000~~.
4. Total estimated cost: $250.00
5. Appropriation: GE-1938
6. Payment: To be made from funds heretofore allotted.
7. Estimated annual maintenance cost: Decreased (See below)
8. Authority is also requested to purchase the material needed, and not now on hand, at an estimated cost of $ -- , and to do the work by contract -- bond, $ -- ; hired labor and depot force, $ 250.00 ; crew of vessels, $ -- This method of performance is considered the most economical and advantageous to the service.
(If it is proposed to do the work partly or wholly by hired labor rather than by contract, give reasons therefor under Item 9)
9. Description, location, and other information:

[illegible]

The present I.O.V. lamp to be replaced with an electric lamp, 1,000 W., T-20 bulb, ~~clear~~, ~~2-G-5~~ filament, mogul base.

Characteristic flash every 7.5 seconds, ~~0.25~~ second flash, 7.25 seconds eclipse.

Clock for revolving lens to be replaced with an electric drive. Present Weight operated clock and I.O.V. lamp to be used as reserve in case of failure of electricity.

Installation of electric light combined with discontinuance of of most of buoy attendance by Keepers with establishment of buoy service base for buoys on south side of Long Island will eliminate one Keeper.

Suggest slow down sufficiently to leave a 0.5 flash every 15 sec.
WH
6/10

J. T. Yates
J. T. YATES, Superintendent.

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES
Washington,

IIG:b

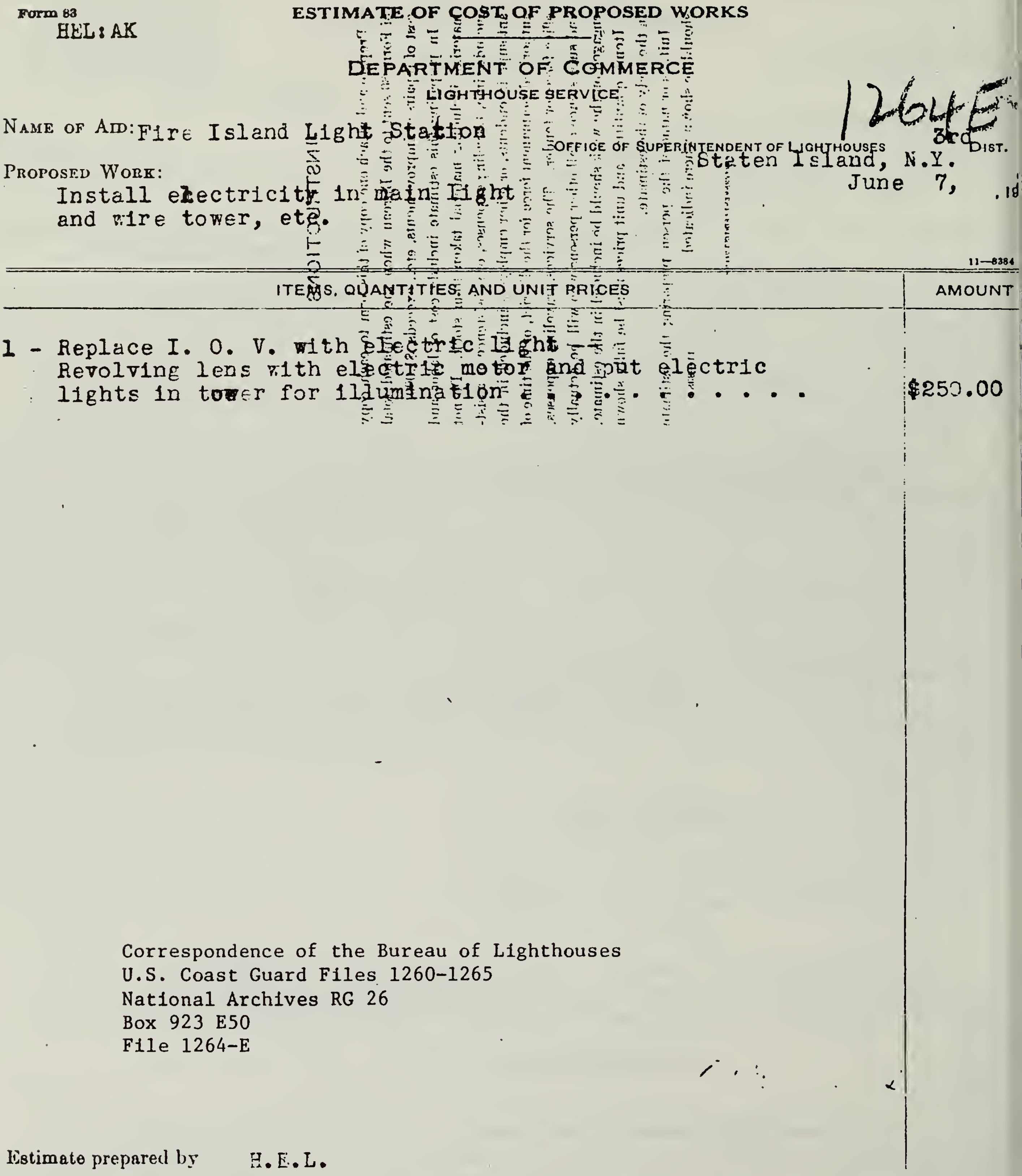
July 1, 1938.

Copy returned to the Superintendent of Lighthouses, approved as recommended, except as noted. You will proceed with the work and report its status, until completed, as required by regulations or instructions.

Your proposed cp was evidently taken from curve No. 251 which shows 500,000 cp for dioptric section only of 8 panel flashing lens. This is only 60% of cp of complete lens panel. The duration of flash you propose is considered too short. Present flash is presumably about 0.7 seconds, assuming one revolution of lens per minute

(SEE PAGE 2)

11—4035



Form 83
HEL:AK

ESTIMATE OF COST OF PROPOSED WORKS

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

1264E

NAME OF AID: Fire Island Light Station

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES 3rd DIST.
Staten Island, N.Y.
June 7, .19

PROPOSED WORK:
Install electricity in main light and wire tower, etc.

11—8384

ITEMS, QUANTITIES, AND UNIT PRICES	AMOUNT
1 - Replace I. O. V. with electric light -- Revolving lens with electric motor and put electric lights in tower for illumination	$250.00

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923 E50
File 1264-E

Estimate prepared by H.E.L.

HEL:AHD

1264E

to Fire Island, except the lower catadioptric section, and this light has been reported as one of the best on this coast.

4. The quarters are electrified.

5. An early reply is requested.

J. T. YATES,
Superintendent.

7/27/38

Bureau of Lighthouses, Washington, D.C., July 11, 1938.

Returned to Supt. of Lighthouses, Staten Island, N.Y. Since your lens revolves once in 30 seconds, the duration of flash with the clear 2C-5 filament lamp would only be

$$\left\{ \frac{30 \times 1.9}{2\pi \times 92} = 0.1 \text{ seconds} \right\}$$

which is considered definitely too short. The inside frosted lamp proposed by the Bureau would have an apparent source diameter of about 6.5 to 7.0 cm and duration of flash with lens revolving once in 30 seconds would be

$$\frac{30 \times 7.0}{2\pi \times 92} = 0.36 \text{ seconds}$$

which would be 33% better than present flash period of 0.27 seconds. It is therefore desired that this lamp (inside frosted) be used. If lens is not equipped with the upper zone of catadioptric prisms, the candlepower will be about 340,000 derived as follows from Curve No. 251:

$$cp = \frac{265000}{0.7} = 378000$$

Deduct for lantern glass	38000
Estimated cp	340000

P.S. In view of your statement as to the satisfactory light at Block Island and as a check on the computations herein, the Bureau requests that you arrange after the installation is completed for the making of a comparative test using the above lamp alternated with that which you recommend to be observed from both Fire Island and Ambrose Channel Lightships to report the observed length of the flash and the relative brilliancy. Submit report to the Bureau after this test has been carried out.

For the Commissioner:

R. R. TINKHAM
Chief Engineer.

ILG:b

GAP:HS

1264E

[illegible]

[illegible] - [illegible] 1264E

pet [illegible] lens — [illegible] light 1.0V. [illegible]

[illegible] flash = 0.3 secs — ([illegible] 0.68 secs)

" " " = $\frac{\text{time of rev} \times 5.2}{2\pi \times \boxed{\cancel{72}}}$? = 0.3

time of rev = $\frac{0.3 \times 2\pi \times \cancel{72}\ 92}{5.2}$ = 30.0 ~~[illegible]~~ secs } ?

lens is [illegible] ~~[illegible]~~ 5.2 45° — [illegible] with flash every 7.5 secs — at 1 R.P.M. —

therefore present flash = $\frac{\cancel{60}\ 30 \times 5.2}{2\pi \times \cancel{72}\ 92}$ = ~~.44~~ ~~0.7~~ 0.3 secs,

For 1000 watt C-7 [illegible] lamp c.p. curve # 251. have 265000 for dioptric lens,

For full lens $\frac{265000}{.60}$ = 440,000

[illegible] flash $\frac{30 \times 6.5}{2\pi \times \cancel{72}\ 92}$ ~~[illegible]~~ 0.4 approx = ~~0.7~~ secs.

6/30

-2-

File 1264-E
3rd Dist - Form 80 - June 7th
Fire Is. Light Station
July 1, 1938.

1264E

(for a flash every 7.5 seconds.) This is derived as follows:

$$\text{Duration of flash} = \frac{\overset{30}{\cancel{60}} \times 5.2}{2\pi \times 72} = \overset{0.27}{0.7} \text{ seconds.}$$

For a PS-52 inside frosted lamp with C-7A sawtooth filament, the duration of flash would figure about ~~0.9~~ 0.35 seconds, derived as follows:

$$\text{Duration of flash} = \frac{\overset{30}{\cancel{60}} \times 6.5}{2\pi \times 72} = \underset{0.35}{\cancel{0.9}} \text{ seconds.}$$

Candlepower would be about 420,000 derived from your curve No. 251 as follows:

$$\text{CP} = \frac{250{,}000}{0.60} = 420{,}000 \text{ approximately.}$$? see later letter

Advise whether quarters are, or will be, electrified.

For the Commissioner:

C. A. PARK
Deputy Commissioner.

ILC:b

ADDRESS ALL COMMUNICATIONS TO
SUPERINTENDENT OF LIGHTHOUSES
STATEN ISLAND, N. Y.

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

1264E

LIGHTHOUSES
JUL 8 8 52 AM '38

GENERAL DEPOT
OFFICE SUPERINTENDENT OF LIGHTHOUSES
3D DISTRICT, STATEN ISLAND, N. Y.

HEL:AHD

July 6, 1938.

The Commissioner of Lighthouses.

SUBJECT: Electric Lamp for Lens at Fire Island Light Station.

REFERENCE: Bureau's endorsement of July 1, 1938, on Form 80 dated June 7, 1938.

1. This office requests that the Bureau reconsider its action on the above Form 80, and approve the use of the 2C-5 filament lamp (360° sawtooth) recommended by this District. A comparison of the 1000-watt frosted lamp and the 1000-watt, 2C-5 filament lamp shows as follows from Curve No. 251:-

	Frosted Lamp.	2C-5 Filament Lamp.
Peak beam candlepower	265,000	500,000
50% of peak beam C.P.	133,000	250,000
Divergence at 50% of peak C.P.	3-1/4°	2-1/2°
Divergence at 133,000 C.P. (same)	3-1/4°	3-1/4°

There is a waste of 50% in current or power when using the frosted lamp.

The frosted lamp is in a PS-52 bulb, about four times as bulky as the proposed T-20 bulb, and its use also increases the number of items to be carried in stock.

It is erroneous with high candlepowers to use the old figure of 10% of the peak candlepower in calculating the length of flash, as the length of flash will be more varied under different conditions. Where the actual divergence of the beam and the speed of the lens are known, a formula is not used. The lens at Fire Island revolves 2 r.p.m., or 1/12 second per degree.

2. The lens at Fire Island Light Station has four 45-degree center dioptric sections with a lower catadioptric section and four blank panels.

The lower catadioptric section candlepower is 10% or less of a complete panel. Its use at this light station being primarily for vertical divergence.

3. The light at Block Island Southeast is a similar set-up

APPENDIX C149.

ADDRESS ALL COMMUNICATIONS TO
SUPERINTENDENT OF LIGHTHOUSES
STATEN ISLAND, N. Y.

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

GENERAL DEPOT
OFFICE SUPERINTENDENT OF LIGHTHOUSES
3D DISTRICT, STATEN ISLAND, N. Y.

1264E

LIGHTHOUSES
JUL 26 8 36 AM '38

HEL:AHD

July 25, 1938.

The Commissioner of Lighthouses.

SUBJECT: Electric Lamp for Lens at Fire Island Light Station.

REFERENCE. Bureau's endorsement of July 11, 1938, in 3rd District letter of July 6, 1938.

1. This office has always considered that actual test data is to be preferred, when available, and does not understand the Bureau's reasons in using the test data on Curve No. 251 for determining the peak candlepower with the lower catadioptric, and using the formula for calculating the length of flash, when the actual divergence is given for both lamps on the Curve. The old formula is based on a point at 10% of the peack candlepower and this leads to advertising a misleading length of flash, even when well within the range of the beam. It is also considered that the Bureau has no doubt taken into consideration that the higher powered light in the lens will be seen further in haze or during low visibility than the frosted lamp.

2. This office, for many years, conducted tests and experiments to develope, with the aid of the lamp manufacturers, different types of lamps best suited for the various lenses, considering divergence as well as peak candlepower, and this information has been sent to the Bureau and other Districts from time to time. It was considered this field was well covered as far as needs of the Service, but it is noted that lately the Bureau does not approve these lamps as recommended by this office on Form 80's and substitutes other lamps. This creates a large variety of lamps in use and makes the number of items carried in stock far more excessive than this office considers necessary, and it is hoped the Bureau will not disregard the effort and development work done in developing lamps better suited for lens work, and the experience gained in this work.

3. It would seem that the observation test from Ambrose Light would be impractical for geographical reasons, as the distance is about thirty (30) miles and it would require a tower several hundred feet higher than Fire Island's to be seen from Ambrose.

4. It is recommended that the Bureau modify its approval of

July 1, 1938, on the Form 8[illegible], and approve the lamp recommended by this office.

J. T. YATES,
Superintendent.

1264-E

1264E

July 27, 1938.

Superintendent of Lighthouses, Staten Island, N.Y.

Fire Island Light Station - Electric Lamp:
Your letter dated July 23, 1938.

1. The cp shown in Bureau indorsement was in error, and correction is made as follows:

Cp for dioptric zone (60% of complete panel)	265,000
Add for lower catadioptric zone (10% of complete panel)	44,167
	309,200
Deduct for lantern glass (10%)	31,000
	278,000 (approx)
(say)	280,000

2. Length of flash is determined in a lens of this type by width of light source and the formula is not related in any way to cp at any point on the cp distribution curve. Actually, and as proved by actual observation, the duration of flash is the time required for direct parallel rays from the light source to pass the observer's eye. The formula is derived on this basis by computing time required for a beam width equal to width of filament to pass a point at the lens circumference. This would swing over the whole circumference in time of one revolution of lens (at Fire Island in 30 secs.) and over distance W (width of source) or past the eye, in time $\frac{W}{2\pi R}$ times seconds for one revolution. This is the universal formula for duration of flash and it is suggested you check its accuracy by actual observation at sea.

3. The Bureau's decisions in regard to approval of types of lamps in connection with Forms 80, are based on adopted policies regarding suitable flash periods. The development of suitable types of lamps for service needs is appreciated and is valuable to the Service, but exceptions are warranted in certain cases to obtain certain objectives. In the case of Fire Island Light Station, be guided by previous instructions. For the comparative observations, it is noted that Ambrose Lightship is too far away. If desired, one of the Coast Guard Stations near the limit of visibility range to the eastward, or the lighted tower at Jones Beach may be used for a second point of observation.

For the Commissioner:

C. A. PARK
Deputy Commissioner.

JLO:b

APPENDIX C149.

ADDRESS ALL COMMUNICATIONS TO
SUPERINTENDENT OF LIGHTHOUSES
STATEN ISLAND, N. Y.

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

1264E

HEL:AJM

GENERAL DEPOT
OFFICE SUPERINTENDENT OF LIGHTHOUSES
3D DISTRICT, STATEN ISLAND, N. Y.

LIGHTHOUSES
Nov 23 8 53 AM '38

ENCLOSURE RECEIVED

November 22, 1938.

Commissioner of Lighthouses:

SUBJECT: Test of 1000 Watt clear and frosted lamps at Fire Island Light Station.

REFERENCE: (a) Postscript on Bureau's endorsement dated July 11, 1938 to 3rd District;
(b) Copies of reports of Keeper of Fire Island Light Station and the Master of Tender SPRUCE.

1. A comparative test was made of the frosted and clear lamps in the lens at Fire Island Light Station on the night of November 8, 1938, and forwarded herewith are reports of the master of the Tender SPRUCE and of the lighthouse keeper. The master of the SPRUCE did not know which lamp was being displayed and the lamp is marked on the edge of the sheet opposite his comments.

2. From the reports, it is the opinion of this office that the clear lamp is best.

3. Should the Bureau desire their representatives to see the comparison, the test can be repeated on land any night they select.

Ansd.
12/1/38

J. T. YATES,
Superintendent.

0,1 [illegible]

0,4 [illegible]

I.F.

(copy ajm)

DEPARTMENT OF COMMERCE
Lighthouse Service

LIGHTHOUSES
NOV 23 8 53 AM '38

Lighthouse Tender SPRUCE

November 3, 1938.

1264 ENCLOSURE

Superintendent of Lighthouses,
3rd Lighthouse District.

SUBJECT: Test of lamps at Fire Island Light Station on the morning of November 3, 1938.

Sir:

The following are findings of above test:

T-20 CLEAR — During the period from 4:00 to 4:15 A.M. light showed very bright, with very quick flash which appeared as a double flash.

During this period tender was under way approximately eight miles West of Lightship and eleven miles Southwest of Light Station.

FROSTED-- During period from 4:15 to 4:30 A.M. light showed amber colored with flash of longer and constant duration.

T-20 LEAR — During period from 4:30 to 4:45 A.M. light showed very bright with very quick flash which appeared as a triple flash. When seen with binoculars it appeared that cause of triple flash was reflection.

During this period tender was close byLightship.

FROSTED-- During period from 4:45 A.M. on light again appeared amber colored with flash of constant duration.

Visibility was good, and in my estimation, lamp shown during periods from 4:00 to 4:15 and 4:30 to 4:45 was far superior as an aid to navigation, to that shown during other periods.

(s) ARTHUR E. LARSEN,
Master.

(copy-ajm)

DEPARTMENT OF COMMERCE
Lighthouse Service

Third District
FIRE ISLAND LIGHT STATION

November 3, 1938.

LIGHTHOUSE NOV 22 8 53 AM '38 INCOMING

1264E

Superintendent of Lighthouses:

SUBJECT: Tests conducted on the two types of 1000 Watt lamps.

Sir:

At 2:00 PM this date I received a telephone call from Inspector Lamb to proceed with tests as outlined in your letter of October 22, 1938.

The First Assistant Keeper was directed to operate the light at this station while I proceeded to the Fire Island Coast Guard station, a distance of about three miles, from which point I observed the light action. While at the local Coast Guard Station I communicated with personnel of the Jones Beach Coast Guard Station and requested personnel that unit observe the light action and report to me of their results.

After the tests were completed all observers agreed in like manner that the 1000 watt, T-20, clear bulb was far superior to the 1000 watt, frosted bulb. The Jones Beach observer was a distance of about sixteen or seventeen miles from Fire Island Light.

The 1000 watt frosted bulb seems to diffuse its light ray in a wide arc which in turn reduces its effective distance, whereas the 1000 watt, T-20 bulb has a shapr piercing ray which concentrates its ray through a very small arc but possesses far greater visibility.

Respectfully,

(s) ADRIEN J. BOISVERT,
Keeper.

1264-E. 1264E

December 1, 1938

Superintendent of Lighthouses,
Staten Island, New York.

The Bureau has noted your letter of the 22nd and accompanying reports relative to the frosted lamp approved for establishment at Fire Island Light Station, as compared to the 1,000 watt clear lamp. The Bureau will apparently have no opportunity for a representative to witness this test in the near future; however, it may be desired to do so at some future date and it is accordingly requested that if practicable the clear lamp be kept at the station for that purpose for the time being.

The important matter of the length of the flash does not appear to have been commented upon by the observers other than to note that the clear lamp produced a "very quick flash" and the flash from the frosted lamp was "of longer and constant duration." It was the advantage of the longer flash from the frosted lamp which particularly influenced its selection in this case and whenever it is possible to introduce the clear lamp temporarily for a further comparison either by your district or by a Bureau observer, it will be desired to note the time interval of the flashes as nearly as possible for a check on the calculations which indicated that the flash from the frosted lamp would be nearly four times that of the clear lamp. The Bureau desires the frosted lamp used and in view of the report as to amber color suggests particular check be made of the voltage, some fluctuation of which may possibly account for the condition observed since no other reason can be advanced. It is noted that this feature was not commented upon by the keeper.

C. A. PARK,
Acting Commissioner.

CAP:HS

INCLOSURE REMOVED

Form 80
DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

RGL:HR

RECOMMENDATION AS TO AIDS TO NAVIGATION

OFFICE OF SUPERINTENDENT OF LIGHTHOUSES 3rd DISTRICT.
Staten Island, N. Y.,
Jan.18,1939.

LIGHTHOUSES
JAN [illegible] 8 59 PM '39

1264E

THE COMMISSIONER OF LIGHTHOUSES:

The following recommendation is submitted for the consideration of the Bureau:

1. Name of aid: Fire Island Light Station
2. Locality: Seacoast of Long Island, N.Y.

3. Proposed action: Drive well 200 ft. and install electric pump.

4. Necessity: Existing well is a shallow well, and after the storm of September 21, 1938, water became very salty and unfit for use.

5. Total estimated cost: $1700.00
6. Appropriation: G.E.1939 (Storm Damage)
7. Payment: To be made from funds allotted.
8. Maintenance estimated, annual cost: Same as heretofore.
9. Authority is also requested to purchase the material needed, and not now on hand, at an estimated cost of $1700.00 in accordance with law and regulations, and to do the work by contract with bond, $1700.00; hired labor and depot force, $ -- ; crew of vessels, $ -- . This method of performance being considered the cheapest and most advantageous to the service.

(If it is proposed to do the work partly or wholly by hired labor rather than by contract, give reasons therefor under Item 10.)

10. Description, location, and other information:

The well on this station is a shallow driven well which is supplied by surface water. There is considerable iron chloride in the ground which colored the water. During the storm of Sept. 21, 1938, the well was salted and is unfit for use. It is proposed to drive a six-inch well casing with a three-inch drop pipe to furnish 460 gallons of water per hour.

Form 33 will be used.

J. T. Yates
RES J. T. YATES, Superintendent.

DEPARTMENT OF COMMERCE
BUREAU OF LIGHTHOUSES

C

.Washington, January 20,1939

Returned to the Superintendent of Lighthouses, approved as recommended, except as noted. You will proceed with the work and report its status, until completed, in your Monthly Report of Operations.

OVER

Correspondence of the Bureau of Lighthouses
U.S. Coast Guard Files 1260-1265
National Archives RG 26
Box 923, E50, File 1264-E

-2-

Form 30, 3rd Superintendent, January 13, 1939, drive well 200 ft. and install electric pump Fire Island Light Station, Seacoast of Long Island, N.Y., Bureau File 1264-E.

Returned approved with the requirements that bids be solicited as follows:

Item 1 - For furnishing all material and labor necessary
for drilling well
1' to 99' inclusive @ ____________ per foot ____________
100' to 149' " @ ____________ per foot ____________
150' to 200 " @ ____________ per foot ____________
Total ____________

Item 2 - For furnishing and installing pump, motor,
wiring, pressure tank, etc. ____________

Total amount of bid.

Awards on items #1 and #2 will be made to one contractor but the award for item #2 will be contingent on the successful completion of Item #1.

C.A.PARK,
Acting Commissioner of Lighthouses.

RLH/C

Form 83

ESTIMATE OF COST OF PROPOSED WORKS

RGL:HR

1264E

DEPARTMENT OF COMMERCE
LIGHTHOUSE SERVICE

Name of Aid: Fire Island Light Station

Proposed Work: Drive well, and install electric pump.

Office of Superintendent of Lighthouses 3rd Dist.
Staten Island, N.Y.
Jan.18,1939.

11—8384

ITEMS, QUANTITIES, AND UNIT PRICES	AMOUNT
1. Driving 200 ft. of well @ $6.00 per ft.	$ 1200.0
2. Installing pump, motor, wiring, connecting to pressure tank, etc.	500.0
	$ 1700.0

Estimate prepared by R. G. LAMB

1264E

ENCL.

JAC:HR
1/18/39
Sheet 1 of 3

U. S. LIGHTHOUSE SERVICE
Specification for
DRIVING WELL
AT FIRE ISLAND LIGHT STATION, FIRE ISLAND, N.Y.

1. WORK TO BE DONE: A well is to be driven consisting of a 3" drop pipe in a 6" casing and an automatic electrically operated pump installed, wired and piped to the lighthouse.

2. LOCATION OF STATION: Fire Island Light Station is located near the westerly end of Fire Island, easterly side of Fire Island Inlet, about 1-1/2 miles from Saltaire, Fire Island. It is accessible to boats of light draft. Bidders are advised to visit the station to ascertain conditions and to obtain data for estimating the cost of the work to be done.

3. WELL: Contractor is to drive a well capable of delivering 2500 gallons per day of clean, fresh water, including 400 gallons during the first hour. A six-inch well casing is to be driven down on pier around the base of the lighthouse. The well casing is to be 6-inch galvanized genuine wrought iron pipe with a 6-foot bronze well strainer, equal to the Cook Well Strainer, manufactured at Lawrenceburg, Indiana. The well casing is to extend down as far as is necessary to furnish the required flow, and is to extend above the concrete floor about six inches and into the pump base at least one inch.

The concrete floor is to be six inches thick at the center and sloping one-quarter inch per foot to the edges. The concrete floor is to be at least 6 feet in diameter. The concrete is to be mixed in the proportion by volume of one part Portland cement, two parts sand, and three parts crushed stone or gravel.

Cement is to be Portland cement conforming to Federal Specifications SS-C-191. Sand is to be clean and sharp, a mixture of course and fine grains and shall contain not more than 5 percent loam. Crushed stone is to be 3/4" size, containing no pieces larger than 1-1/2" nor smaller than 1/4" measured in any cross section. Water is to be clean and only enough used to give a mushy consistency that will flow when agitated but from which the ingredients will not separate.

4. PUMP: The contractor is to furnish and install on the concrete top of the well and bolted thereto, an electric motor driven, deep well pump, equal to the Fairbanks-Morse 9" Stroke Deep Well Electric Water Systems, No.901B-120 with self-oiling deep well working head with a double gear and pinion drive, walking beam design, complete with pressure cylinder and air compressor. Deep well pumping head is to be

HAC:HR
Sheet 2 of 3

equipped with one horsepower motor and have a rated capacity of 465 gallons of water per hour when pumping against a 40 lb. pressure in the tank, and is to have an automatic, double-pole motor control switch, set to act at about 20 lbs., and to cut out at about 40 lbs. pressure. The electric motor is to be one horsepower, high grade, heavy duty motor, for 110-220 volt, 60 cycle, single phase current. The 220-volt connection is to be used.

The drop pipe is to be 3-inch galvanized genuine wrought iron pipe.

The well cylinder is to be 2-3/4" x 12", all brass, single action, open type cylinder, in order that plunger may be removed without withdrawing drop pipe from the well and dismantling the entire cylinder. The sucker rod is to be at least 1-3/8" wood sucker rod, with coupling.

The pump is to be mounted with a frost-proof attachment that will keep the water at least 5 feet below the top of the well. The outfit is to be self-starting, self-stopping, and self-lubricating. Bidders shall submit with their bids a sketch with dimensions showing the manner in which the frost-proof attachment is to be connected.

The pumping head is to be enclosed in a No.18 gauge, galvanized iron case, with a 1/4" wire reinforcement around the bottom to set on the concrete top of the well, and is to have a suitable locking device to lock the case to the concrete well top. The case is to be constructed to fit tightly to the concrete well top and keep the weather from the motor.

This water system is to have a 120-gallon tank guaranteed for 75 lbs. working pressure, and tested under 150 lbs. hydrostatic pressure per square inch, galvanized inside and outside after manufacture. The system is to have an automatic air release to maintain the correct proportion of air and water in the storage tank. The tank is to be located in the keeper's cellar in the same location as the present tank and is to be supplied with a hose cock for drawing off the water. A suitable cast iron bracket or legs to keep the tank off the ground is to be ~~xxx~~ provided.

The pump is to be connected from the well to tank with 1-1/4" galvanized genuine wrought iron pipe and fittings. The pipe outside of the building is to be laid five feet below grade, and thru the pier on which the lighthouse is built and enter the cellar thru the cellar wall.

Between the pump and the storage tank is to be installed a 1-1/ 4" brass check valve.

The pump outfit is to be furnished with an automatic air volume control and a 700 cubic inch inside volume cast iron air chamber.

A relief valve is to be installed to protect the motor from burning out due to overloading of the pressure and a pressure gauge is to be installed on the tank.

5. WIRING: Contractor is to bring power to and connect up the electric motor. The wiring is to be taken from a separate circuit from the tower meter, and carried thru galvanized conduit underground to the pump. A combination switch and fuse box with 6 spare fuses shall be installed near the meter. All wiring is to be in accordance with the N.E.L.A. wiring code. #10 wire is to be used.

6. TEST: Contractor is to furnish equipment for testing the well, and shall give 48 hours notice of the date of any test. The Government reserves the right to have the contractor test the well at each change of the stratum at which a new water supply appears. When it appears that clear water in sufficient quantity is reached, the contractor shall await the results of tests by the Government as to the purity of the water before proceeding with the work. This will take about five days.

7. GENERAL CONDITIONS: All excavated material is to be backfilled and neatly graded, and any rubbish accumulating as a result of this work is to be removed from the grounds by the contractor. All materials must be of the best quality of their respective kinds, and all work must be done in a neat, thorough and workmanlike manner by skilled mechanics. If the contractor proposes to furnish anything different than specified, a cut and full description of same must accompany the bid. Successful bidder must furnish references as to having driven three wells at least 150 ft. deep.

8. BASIS OF AWARD: Contractor is to quote a flat price for doing the entire work specified, including driving the well to a 150 ft. depth. In addition, the contractor shall quote the price per foot for additional work, should it be found that sufficient fresh water is not obtained at the 150 ft. depth. For the purpose of making the award, the bids will be evaluated on the assumption that a 200 ft. well will be required.

9. INSPECTION: A representative of the Superintendent of Lighthouses, Staten Island, N. Y., will inspect all materials and workmanship at the site.

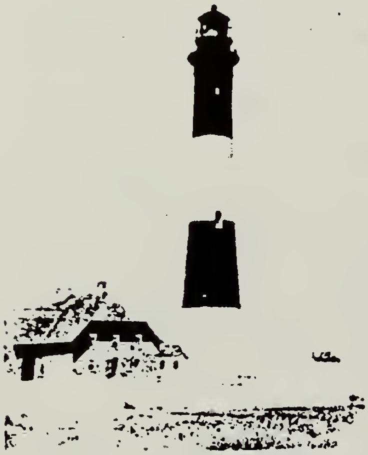
10. GUARANTEE: The contractor is to guarantee the satisfactory performance of all work under the contract for a period of 6 months after completion.

11. PAYMENT: Payment of 90 percent of the contract price will be made within 30 days after completion of the work mentioned, and the remaining 10 percent will be paid after the guarantee of paragraph 10 has been satisfactorily fulfilled.

New York

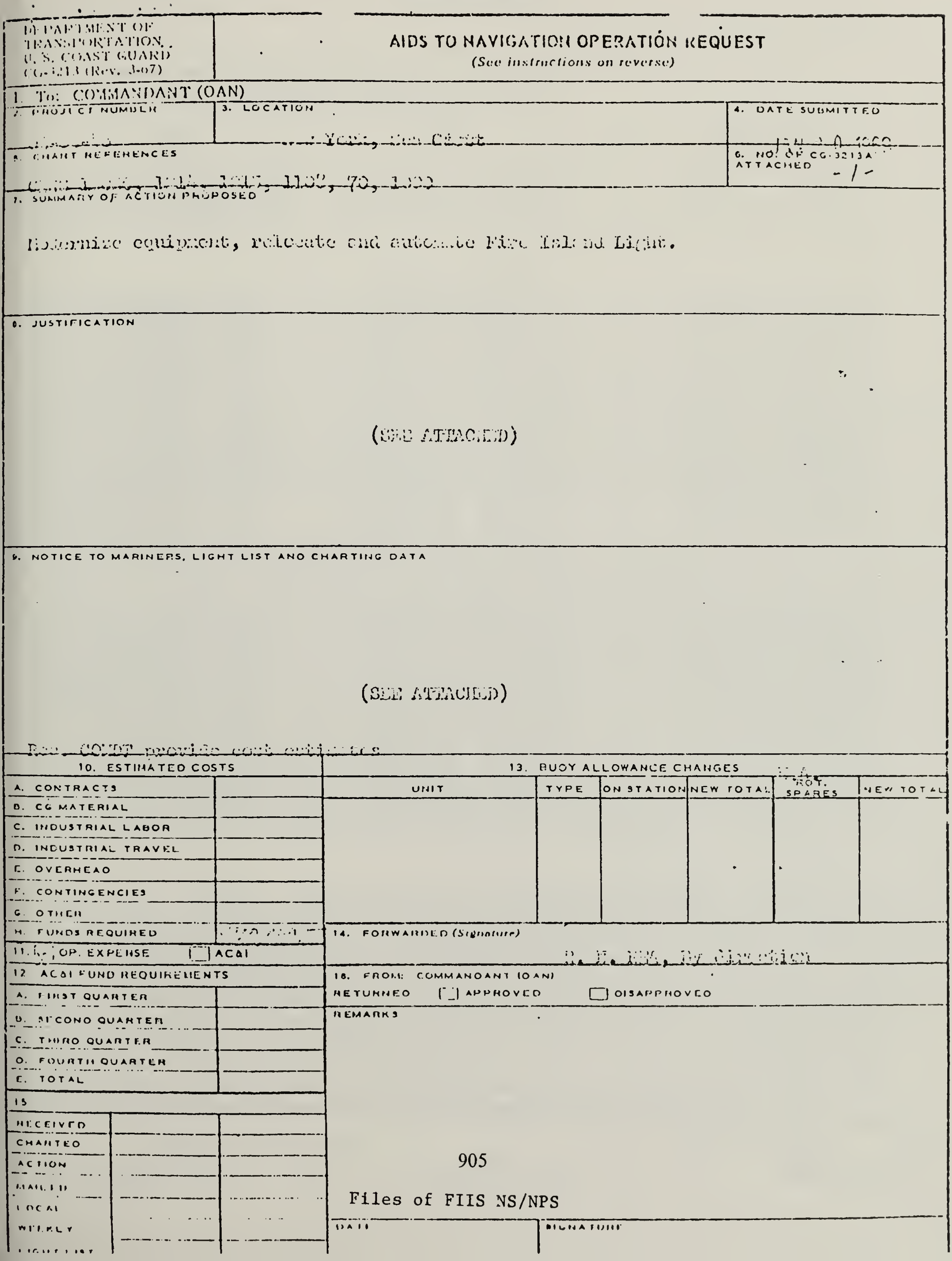
FIRE ISLAND LIGHTHOUSE

Near town of Saltaire, and Fire Island State Park.



This lighthouse, a 167 foot brick tower painted in black and white bands, is one of the important aids to navigation marking the approaches to the port of New York. Inbound transatlantic ships, running parallel with the coast of Long Island, pass the light, and many ships from the southward also sight the light before changing course to enter New York Bay. The first lighthouse to be erected here was completed in 1827, the present tower being built in 1858. In 1886 the large Cunard passenger steamer OREGON was sunk near Fire Island Lighthouse in a collision, and shortly afterward this obstruction was marked by a lightship placed several miles offshore. The lightship was found to be of so much use to navigation that in 1896 the station was permanently established being named Fire Island Lightship Station. Since the establishment of the lightship the lighthouse has lost some of its importance, the lightship being closer to the track of vessels.

U. S. GOVERNMENT PRINTING OFFICE : 1939—O-159623



DEPARTMENT OF
TRANSPORTATION
U. S. COAST GUARD
CG-3213 (Rev. 3-67)

AIDS TO NAVIGATION OPERATION REQUEST

(See instructions on reverse)

1. To: COMMANDANT (OAN)

2. PROJECT NUMBER [illegible]

3. LOCATION [illegible] York, [illegible] Coast

4. DATE SUBMITTED [illegible]

5. CHART REFERENCES [illegible], 1108, 70, [illegible]

6. NO. OF CG-3213A ATTACHED -1-

7. SUMMARY OF ACTION PROPOSED

Modernize equipment, relocate and automate Fire Island Light.

8. JUSTIFICATION

(SEE ATTACHED)

9. NOTICE TO MARINERS, LIGHT LIST AND CHARTING DATA

(SEE ATTACHED)

Rec. COMDT provide cost estimates

10. ESTIMATED COSTS	
A. CONTRACTS	
B. CG MATERIAL	
C. INDUSTRIAL LABOR	
D. INDUSTRIAL TRAVEL	
E. OVERHEAD	
F. CONTINGENCIES	
G. OTHER	
H. FUNDS REQUIRED	[illegible]

11. ☐ OP. EXPENSE ☐ AC&I

12. AC&I FUND REQUIREMENTS	
A. FIRST QUARTER	
B. SECOND QUARTER	
C. THIRD QUARTER	
D. FOURTH QUARTER	
E. TOTAL	

13. BUOY ALLOWANCE CHANGES

UNIT	TYPE	ON STATION	NEW TOTAL	ROT. SPARES	NEW TOTAL

14. FORWARDED (Signature)

R. E. [illegible], By direction

16. FROM: COMMANDANT (OAN)

RETURNED ☐ APPROVED ☐ DISAPPROVED

REMARKS

15		
RECEIVED		
CHARTED		
ACTION		
MAILED		
LOCAL		
WEEKLY		
LIGHT LIST		

DATE

SIGNATURE

Files of FIIS NS/NPS

8. JUSTIFICATION

The masonry tower structure supporting Fire Island Light is in a serious state of deterioration. The tower was constructed in 1858 and consists of a circular brick wall varying in thickness covered by a cement stucco outer surface added prior to 1912. Permanent repairs to the structure to prevent further deterioration and injury to personnel from falling stucco are required now. Permanent repairs will cost $100,000. Temporary repairs, with no guarantee of permanency, will cost between $55,000 and $95,000. In 1969 $11,500 was spent on repairs which are already failing. Since 1950 over $30,000 have been spent on the structure.

Between Montauk Point Light and Ambrose Light (the entire seacoast of Long Island), Fire Island Light is the only major seacoast aid. The proposed structure and optic will provide adequate capability to furnish coastwise traffic a proper aid for piloting. An Xenon flash tube light optic similar to that installed on Ambrose Light is desired to prevent the possibility of false flashes which might develop with the use of a rotating beacon. The new beacon would consist of two flash tube reflector assemblies to show through an arc of 180 degrees to sea only. It will be installed on the newly constructed Robert Moses State Park water tower. The State of New York has informally agreed to this installation. A structalt will shortly be submitted.

The old light structure and residence will be declared excess. The New York State Park Commission is very interested in acquiring this historic site. The personnel were removed from the light station an undetermined number of years ago and a monitor cable run to the OOD office at Fire Island Station. CCGD3 personnel allowance records do not indicate what the allowance for the light station was but it is believed that it was absorbed by Fire Island Station. Fire Island Station will continue to monitor the new light and have responsibility for maintenance of the light signal. Fire Island Radiobeacon, located a short distance from the present light structure, will continue to be the responsibility of the Radio Station Annex. The emergency generator will be located at Fire Island Station because of inadequate room in the water tower. Fire Island Station presently has an authorized personnel allowance of eight, four of which are believed to be originally assigned to Fire Island LTSTA. These four billets are desired for New York Station and will be the subject of separate correspondence.

9. NOTICE TO MARINERS, LIGHT LIST, AND CHARTING DATA

NEW YORK - SEACOAST - FIRE ISLAND LIGHT (LLNR [illegible]) will be relocated to the top of the water tower at Robert Moses State Park (40-37.4 N., 73-15.7 W.) 4,800 yards, 0[illegible] degrees from Fire Island Inlet Breakwater Light (LLNR [illegible]), two miles from the east end of inlet and the resident personnel removed. The 600,000 candlepower light will show GP. Fl. W. 10^{s} (2 flashes) from 260 degrees to 080 degrees for a luminous range of [illegible] miles, geographical range 20 miles. The light will be [illegible] feet above ground and [illegible] feet above water in the [illegible] foot red brick tower which will also display red aircraft warning lights from the cupola at the top. Fire Island Radiobeacon will remain in its presently charted position 4,100 yards [illegible] degrees from the new light.

MASSACHUSETTS, RHODE ISLAND and NEW YORK - SEACOAST - Scheduled gunnery exercises and aircraft tests will be conducted within a 7.5 nautical mile radius of positions indicated during the following periods:

SURFACE GUNNERY EXERCISES

DATE	TIME	COORDINATES
17 thru 21 December 1973	10:00 AM to 4:00 PM	40°45'N.,70°50'W.
19 thru 21 December 1973	4:00 PM to 10:00 PM	40°45'N.,70°30'W.
19 thru 21 December 1973	4:00 AM to 10:00 PM	40°08'N.,72°58'W.
	AIRCRAFT TRAINING	
22 & 23 December 1973	9:00 AM to 3:00 PM	40°45'N.,71°10'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°45'N.,70°50'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°45'N.,70°30'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°45'N.,70°12'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°20'N.,71°10'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°20'N.,70°50'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°20'N.,70°30'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°20'N.,70°10'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°35'N.,72°20'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°37'N.,71°55'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°15'N.,72°20'W.
22 & 23 December 1973	9:00 AM to 3:00 PM	40°15'N.,71°55'W.
	AIRCRAFT TESTS	
22 & 23 December 1973	7:00 AM to 4:30 PM	40°45'N.,71°10'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°45'N.,70°50'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°45'N.,70°30'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°35'N.,72°20'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°45'N.,70°12'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°37'N.,71°55'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°15'N.,72°20'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°15'N.,71°55'W.
22 & 23 December 1973	7:00 AM to 4:30 PM	40°08'N.,72°39'W.

C&GS Charts 1108 (NO 12120), 70 (NO 13006), 1000 (NO 13003) LNM 53 (12-12-73)

NEW YORK - SEACOAST - On or about 1 January 1974, FIRE ISLAND LIGHT will be relocated to the lighted tower at Robert Moses State Park (40°37'24"N.,73°15'42"W). The light will show Gp. Fl, W, 10^s (2 fl) from 234° to 084° for the nominal range of 22 miles with reduced intensity visible elsewhere. The light will be shown 180 feet above ground and 181 feet above water from the red brick tower which will also display red aircraft warning lights from the cupola at the top. Prior to official operation, the light will be lit at various times during the day for testing purposes. Fire Island Radiobeacon will remain in its present charted position.

C&GS Charts 120SC (NO 12175) 1214 (NO 12134) 1215 (NO 12133) 1108 (NO 12120) 70 (NO 13006) 1000 (NO 13003) (DP 03-69-46) Light List No. 92

Supersedes LNM 43 (10-11-73)

Files of FIIS NS/NPS

OPTIONAL FORM NO. 10
MAY 1962 EDITION
GSA FPMR (41 CFR) 101-11.6

UNITED STATES GOVERNMENT

Memorandum

APPENDIX C154.

3261

DATE: 11 February 1974

TO : Chief of Staff
Via: Chief, Operations Division

FROM : Chief, Aids to Navigation Branch

SUBJECT: Fire Island Light; recent inquiries concerning

Ref: (a) District Project 03-69-46

1. The project to relocate Fire Island Light from the deteriorating brick structure built in 1858 was initiated in 1966. Civil Engineering estimated at that time that $120,000 would be required for permanent repairs to the tower. The decision to relocate the light was made, and records indicate that initial plans were to construct a 70-foot tower with a DCB-36 searchlight optic installed under reference (a). In 1967, a proposal was advanced to relocate the light to the top of a water tower which was under construction at that time by the Long Island Park Commission. The Commandant authorized the design of a small flashtube optic which could easily be installed in the tower. This unique optic was recently installed and made operational on 1 January 1974. The enclosed sketch diagrams the visibility of the light as it is installed.

2. Several complaints have been received recently from members of the boating public since the light is no longer visible from portions of Great South Bay. Such inquiries have been answered by letters similar to the attached. The problem of the bay side of the light was apparently considered to some extent since Captain REA stated in a memo to file during the preparation of the relocation project that "There should be no real need for coverage inland." Due to the height of the light and the fact that it is visible from the rear, although at low intensity, I have taken the position that, as a seacoast aid, it is not required inland and should not be changed at this time. It appears to be a case of complaint because a familiar landmark has been altered, not because a real safety hazard has been created by the relocation. Further changes can be considered later, if necessary, but the arrangement of the optic will not permit a change without the excessive additional expense of installing an additional flash head.

T. T. WETMORE III

Encl: (1) Copy, Section of C&GS 120-SC
(2) Proposed letter

All channels in Great South Bay are well marked with lighted buoys. — There is no need of light. Aircraft warning lights are visible over Bay

Files of FIIS NS/

Buy U.S. Savings Bonds Regularly on the Payroll Savings Plan

APPENDIX C155.

EPARTMENT OF RANSPORTATION . S. COAST GUARD G-2582 (Rev. 3-69)	PROCEEDINGS OF A BOARD OF SURVEY	SURVEY NO. 12559
PROPERTY IDENTIFICATION Coast Guard Annex Fire Island Station, Fire Island, N.Y.		DATE AUG 4 1975 GSA CONTROL NO. 08012

ITEM NO.	DESCRIPTION	DATE OF ACQUISITION OR CONSTRUCTION	ORIGINAL COST	EST. FAIR MARKET VALUE
1.	Land Real Property remaining from original reservation - approx. 25 acres	1825	$ 50.00	$1,750,000
	Light Stations			
2.	Buildings (a) Dwelling, 2 story, stone approx. 58' x 56'; 2 quarters 100% occupied by Department of Interior, National Park Service personnel, good condition, average maintenance	1858	$40,000 est	$ 48,000
	(b) Dwelling, modernized (credit) $33,000. Dwelling good condition	1963	$33,000	included in Bldg. cost Item 4(a)
	(c) Dwelling, brick and stone masonry foundation; 100' x 150' x 6' high, good condition, average maintenance	1858	$3,985 est	None
3.	Paint Locker, 1 story, metal 10' x 14', 0% utilized, fair condition, high maintenance	1950 est.	$270 est.	None
	Structures			
4.	(a) Light Tower, brick, 167' high, 0% utilized, poor condition, exterior scaling, high maintenance	1858	$58,500	$80,000
	(b) Waterproofed Tower	1961	$ 8,000	None
	Outside Appurtenances and Improvements			
5.	Water Supply (a) Well, 3" pipe in 6" casing, 100' deep	1939	$2,588	$ 1,500

Files of FIIS NS/NPS

APPENDIX C155.

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-2581 (Rev. 3-69)	ROCEEDINGS OF A BOARD OF SURV	SURVEY NO. 12559
PROPERTY IDENTIFICATION Coast Guard Annex Fire Island Station, Fire Island, N.Y.		DATE AUG 4 1975 GSA CONTROL NO. 08012

ITEM NO.	DESCRIPTION	DATE OF ACQUISITION OR CONSTRUCTION	ORIGINAL COST	EST. FAIR MARKET VALUE
	(b) Water purification system, 100% utilized, good condition, low maintenance	1963	$2,000	$ 500
6.	Sewer System - including plumbing system for 3 baths, 800 gal. septic tank, 100% utilized, good condition, low maintenance	1931	$10,500 est	$4,500
7.	Fence, chain link, 6' high, 300±' 100% utilized to prevent personnel encroaching to tower, fair condition, low maintenance	1968	$2,000 est	$500
8.	Fuel System - 2-600 gal. steel tanks, 100% utilized, fair condition, low maintenance	1928	$200	400
	Radio Station			
9.	Buildings Barracks, 2 story, masonry, 82' x 26', 0% utilized, fire damage occurred April 3, 1972, poor condition, high maintenance	1921	$39,308	None
	Oil Burner	1961	$1,000	None
	Improved Roofing		$9,000	None
	Provided Fire Protection System		$2,000	None
10.	Generator area, 16'-6" x 31', one story, masonry attached to west side of barracks, 0% utilized, fair condition, low maintenance	1915	$2,978	$ 4,000
11.	Air Conditioning/CO_2 System area, 19' x 19', 1 story, masonry, attached to east side of barracks 0% utilized, good condition, high maintenance	1951	$39,000	$ 5,000
12.	Transformer Vault Building, one story, masonry, 9' x 15', 100% utilized, fair condition, low maintenance	Unknown	Unknown	2,000
13.	Maintenance Shop area, approximately 29" x 38", attached to south side of barracks; 100% occupied by National Park Service. Fair condition, low maintenance	Unknown	Unknown	15,000

APPENDIX C155.

EPARTMENT OF ANSPORTATION S. COAST GUARD -2533 (Rev. 3-69)	PROCEEDINGS OF A BOARD OF SURVEY	SURVEY NO. 12559
PROPERTY IDENTIFICATION oast Guard Annex Fire Island Station, Fire Island, N.Y.		DATE AUG 4 1975 GSA CONTROL NO. 08012

EM O.	DESCRIPTION	DATE OF ACQUISITION OR CONSTRUCTION	ORIGINAL COST	EST. FAIR MARKET VALUE
14.	Garage/Equipment Building, 62' x 25', 1 story, brick; building contains area 15' x 25' utilized as radio beacon equipment room (south end of building) 100% utilized; remaining building occupied by Kismet Fire Department, good condition, low maintenance	1966	$39,000	$48,000
	Conversion of equipment room for communication equipment	1971	$3,000	None
15.	Storage Building, wood frame, 16' x 30', east of boardwalk, B/S 6300, Item 1(e), 1 story, 0% utilized, fair condition, high maintenance	1942	$1,500 est.	$ 800.00
16.	Oil House Building, (Paint Locker) brick, 10' x 12', Item 1(d) B/S 6300, 1 story, 0% utilized, fair condition, average maintenance	1942	$500 est.	None
17.	Storage Building, brick, 1 story, 11' x 14', Item 1(b) B/S 6300, 0% utilized, fair condition, average maintenance	1942	$600 est.	None
	Outside Appurtenances & Improvements			
18.	Sanitary System - 1,500 gal. septic tank with 18' x 20' absorbtion field, 0% utilized, fair condition, low maintenance	1961	$5,000	2,500.00
	Lift pump station and expanded seepage field, 0% utilized, fair condition, average maintenance	1968	$9,000	3,000.00
19.	Garage/Equipment Parking Pavement, asphalt, 100% utilized, good condition, low maintenance	1966	$7,000	5,000.00
20.	Roadway asphalt pavement, 100% utilized, fair condition, low maintenance	1965	$9,000	2,000.00

APPENDIX C155.

DEPARTMENT OF TRANSPORTATION U. S. COAST GUARD CG-2592 (Rev. 3-69)	PROCEEDINGS OF A BOARD OF SURVEY	SURVEY NO. 12559
PROPERTY IDENTIFICATION Coast Guard Annex Fire Island Station, Fire Island, N.Y.		DATE AUG 4 1975 GSA CONTROL NO. 08012

ITEM NO.	DESCRIPTION	DATE OF ACQUISITION OR CONSTRUCTION	ORIGINAL COST	EST. FAIR MARKET VALUE
21.	Water System 2" diameter, plastic line approximately 1,200 LF, taps into Long Island Park Commission artesian well, 600' deep; 5" diameter casing, 100% utilized, good condition, low maintenance	Unknown	Unknown	$ 2,800.00
22.	Conical monopole antenna (2) disassembled and located near outhouses, 0% utilized, fair condition, no maintenance	1963	$3,000	None
23.	300' Tower, guyed in three directions, with insulators, 0% utilized, fair condition, average maintenance. Contract Tcg-37140-CG4133-C, G-EEE-2 purchase, cost $700.00	1947	$36,000	$3,000.00
24.	Antenna pole, 3 each, wood, 90' high with 120 radial ground rods; (150' radius) previously used as medium frequency comm antenna, 0% utilized, fair condition, low maintenance	Unknown	Unknown	None
25.	Tower 125', radio beacon, open framed, steel, with radial ground system, 100% utilized, fair condition, average maintenance	Unknown	Unknown	500.00
6.	T-Pier, wood, 8' wide x 280' "T" section 10' wide x 47', 10", B/S October 8, 1970(app'd-raze structure without public notice) Estimate original cost at $30,000. South end used by National Park Service, 100% utilized, poor condition, average maintenance	1939	$14,120 est.	$ 2,000.00
7.	Boardwalk, wood, approximately 870 LF x 5' wide, 100% utilized, fair condition, average maintenance	1939	$600	1,000.00
8.	Fence, chain-link, approximately 94 LF; 6' high around radio beacon tower, 100% utilized, fair condition, low maintenance	Unknown	Unknown	$200

PARTMENT OF
ANSPORTATION
S. COAST GUARD
-2582 (Rev. 3-69)

PROCEEDINGS OF A BOARD OF SURVEY

SURVEY NO. 12559

PROPERTY IDENTIFICATION

Coast Guard Annex Fire Island Station, Fire Island, N.Y.

DATE AUG 4 1975

GSA CONTROL NO. 08012

EM O.	DESCRIPTION	DATE OF ACQUISITION OR CONSTRUCTION	ORIGINAL COST	EST. FAIR MARKET VALUE
	Enclosures: (1) CCGD3(dpl) ltr 11011 of 19 May 1975 with enclosure (2) Completed Property Utilization Questionnaire (3) Narrative Report (4) DWG 03-5523 - Plot Plan with metes and bounds description (5) Exhibits - Copies of licenses and data cited (6) Photographs (5) (7) Attorney's Report of Title (8) Supplemental Information on Coast Guard Annex, Fire Island Station (9) Reservation of Easement and Retained Property, Fire Island Radio Annex			

EDITION MAY BE USED

APPENDIX C155.

DEPARTMENT OF TRANSPORTATION
U. S. COAST GUARD
CG-2582 (Rev. 3-69)

PROCEEDINGS OF A BOARD OF SURVEY

SURVEY NO. 12559

PROPERTY IDENTIFICATION
Coast Guard Annex Fire Island Station, Fire Island, N.Y.

DATE AUG 4 1975

GSA CONTROL NO. 08012

ITEM NO.	DESCRIPTION	DATE OF ACQUISITION OR CONSTRUCTION	ORIGINAL COST	EST. FAIR MARKET VALUE
	Outgrants			
A.	Outgrant-revocable license to Professor Paul A. Buckley of Hofstra University, Hempstead, Long Island, for conducting biological research.			
B.	License to Kismet Fire District, Kismet Beach, Fire Island to house fire equipment in garage. Contract DOT-CCGD3-20053 expired 30 April 1975;however, renewal of license is being processed.			
C.	License to New York Telephone to bury telephone cable to lighthouse, etc. License No. DOT-CCGD3-20086, Expires 30 April 1980.			
D.	License to Department of Commerce NOAA to install 60' long trailer for use as field laboratory; license DOT-CCGD3-20066 expires 30 June 1976. (Trailer located south side of barracks) License to U.S. Department of Interior.			
E.	National Park Service to occupy: a. Main Radio Annex Building, except Emergency Generator Room at east end. b. Stone Duplex Dwelling, subject to existing occupancy of one unit by Coast Guard personnel until 30 November 1974. c. Various small outbuildings. d. "T" Pier, noting that said pier is dilapidated and in need of renovation to make safe for use. e. All that excess land shown on CG Drawing 03-4883. License No. DOT-CCGD3-20055			

e CERTIFY that we have examined the listi of real property and find the
ps as stated.

DATE
AUG 4 1975

GNATURE OF MEMBER	SIGNATURE OF MEMBER	SIGNATURE OF RECORDER
F. H. Clausen	R. E. Williams	Allan Zammit P.E.
H. CLAUSEN DR, USCG	R. E. WILLIAMS LT, USCG	ALLAN ZAMMIT

NIT

DATE

] Recommendation of Board is approved.

☐ Board is referred to district commander (or Headquarters) for consideration.

Recommendation of Board is not approved.

SIGNATURE OF CONVENING AUTHORITY

NIT
mmander, Third Coast Guard District

DATE
4 September 1973

] Recommendation of Board is approved.
a CCGD3(dpl) ltr 11011 of 9/4/73

☐ Property will be disposed of as recommended.

] Recommendation of Board is not approved.

☐ Board is referred to Headquarters for consideration.

D. E. [illegible], Acting

SIGNATURE OF DISTRICT COMMANDER/
COMMANDING OFFICER OF HEADQUARTERS UNIT

COAST GUARD HEADQUARTERS

DATE

Recommendation of Board is approved

☐ Property will be disposed of as recommended.

.recommendation of Board is not approved.

SIGNATURE

DATE

rty disposed of as directed. Returned to final approving authority.

SIGNATURE

APPENDIX C156.

Commander
CG Group Rockaway
Ft. Tilden, NY 11695

11011
21 October 1975

From: Commander, Coast Guard Group Rockaway
To: Commander, Third Coast Guard District (dpl)

Subj: Preservation of Fire Island Light

Ref: (a) Your ltr 11011 of 4 Sep 1975

1. Fire Island Light Tower was inspected on 17 October 1975. The grounds within the fencing are not considered to be safe for public access due to pieces of the concrete exterior sheathing scaling and falling. The enclosed photographs document this condition.

2. The condition of the exterior metal reinforced concrete sheathing is considered to be beyond the capabilities of station or group personnel for preservation and is in fact considered to be beyond the "preservation" stage for standards of maintenance, but will require rehabilitation.

3. The disarray of the yard stone and brick decking is also considered to be beyond the capabilities of group or station personnel to restore since it appears to be caused by an undermining of the subsurface.

4. The following immediate actions are being taken to preserve the tower and grounds within the boundary fence:

a. Photographs were taken to initiate a record of condition. Copies are enclosed. Enclosure (1) is a narrative description of each photograph.

b. Damaged barbed wire atop the perimeter fencing is to be replaced.

c. Coast Guard locks will be installed on the fencing gates and the tower door.

d. Access deterrant signs will be placed on the fencing.

e. The stone and brick decking within the perimeter fencing will be cleared of debris and weeds.

f. Loose scale that has dropped from the tower exterior will be removed in order that the amount of future pieces dropping may be gauged.

Files of FIIS NS/NPS

21 October 1975

Subj: Preservation of Fire Island Light

g. Interior debris will be removed.

h. Missing portions of the stairway safety line will be replaced.

i. Broken tower window panes will be replaced.

5. A log of maintenance accomplished, materials used and man hours expended will be kept.

P. B. ROBERTSON

Encl: (1) Narrative description of photographs

Copy to:
CG Sta Fire Island

2

3 Action

APPENDIX C157.

[illegible]
[illegible]

[illegible]
[illegible]

STATION FIRE ISLAND OPERATIONS ORDER 8-75

Subj: Preservation of Fire Island Light Station

Ref: (a) CCGDTHREE (dpl) ltr [illegible] of 4 September 1975 NOTAL

1. SITUATION: As indicated in reference (a), Fire Island Light Station has been listed in the National Register of Historic Places. Since the Light Tower is not specifically included in Permit DOT-CCGD3-20055, License for Use of Real Property by Other Federal Agencies, the responsibility for the preservation of the Light Tower remains with the Coast Guard until disposal of the property.

2. MISSION: Preserve Fire Island Light Tower in accordance with the standards for implementation of Executive Order 11593 which is highlighted in the EXECUTION portion of the operations order.

3. EXECUTION: The Officer-in-Charge, Aids to Navigation Department, Station Fire Island will supervise the preservation utilizing manpower from the Aids to Navigation personnel assigned to him.

a. Area of preservation: Fire Island Light Tower, grounds within the related fenced area, and the fence itself.

b. Identification: Appropriate signs will be posted in the area.

c. Security: The Light Tower will be secured with lock and key. The key will be held by the Officer-in-Charge, Aids to Navigation and a spare will be maintained in the Station key locker. Similarly, the gates of the fenced area and the door on the south side of the fenced area will be locked and key distribution will be the same except that an additional key will [illegible] residents of the adjoining duplex structure for purposes of emergency egress from the duplex.

x. Coordinating Instructions:

(1) The designated force of Aids to Navigation personnel while engaged in this preservation will remain under the operational and administrative control of Commanding Officer, Coast Guard Station Fire Island.

(2) Preservation before restoration or rehabilitation is the application of measures designed to sustain the form and extent of the structure essentially in the existing state. Preservation aims at halting further deterioration and providing structural safety but does not contemplate significant rebuilding. Preservation includes techniques of arresting or slowing deterioration of the structure; improvement of structural conditions to make the structure safe, and normal maintenance and minor repairs that do not change or adversely affect the fabric or the historic appearance of the structure.

(a) All physical evidence and objects relating to it are preserved and recorded. Recording of the initial state of the Light was accomplished on 17 October 1975 by photography.

(b) Normal housekeeping and minor repairs that do not change or adversaly affect the fabric or historic appearance will be carried out on a weekly basis after initial cleanup is completed.

Files of FIIS NS/NPS

STATION FIRE ISLAND OPERATIONS ORDER 8-75

(c) Measures will be taken to arrest or slow deterioration of the historic fabric.

(d) Measures will be taken to control vegetal growth in the historic environment.

(e) Items requiring periodic replacement, such as paint or roof coverings, will be replaced in kind unless a change is required to return to the historic appearance.

(f) No attempt will be made to make ruins out of the whole structure.

(g) Intrusions, such as roads and necessary utilities, do not seriously affect the historic integrity of the structure or its environment.

(h) Natural accretions of time, such as some vegetal growth will be retained unless they are incongruous intrusions on the historic scene or seriously hamper visitor understanding.

(3) Preservation beyond the capability of station personnel will be requested from Group Rockaway by work order or from higher authority by Shore Station Maintenance Record system in accordance with CCGDTHREE OPLAN 1-(FY).

(4) Administration and logistics:

(a) Officer-in-Charge, Aids to Navigation, Station Fire Island will prepare and record work lists and maintain a record of all work accomplished including man/hours expended and equipment and material utilized or expended.

(b) Any materials or equipment needed will require authorization for expenditures by Commander, Coast Guard Group Rockaway. All such requests will be forwarded via Commanding Officer, Coast Guard Station Fire Island.

(5) Command and signal:

(a) Normal

(b) This operations order is effective upon receipt.

R.L. BLAKE

Distribution:
CG Station Fire Island (5)
CG Group Rockaway (2)

APPENDIX C158.

Typed CG News
Release - never released.

FIRE ISLAND LIGHTHOUSE

Under a permit issued by the Coast Guard, the National Park Service was authorized use of three buildings surrounding Fire Island Light and the surrounding land. This permit delegated responsibility for the maintenance of the buildings and the grounds, and was accepted by the National Park Service. The permit went into effect on 01 March 1974 and runs to 31 January 1979.

On 04 September 1975, the Third Coast Guard District declared all of the property at Fire Island, including the light, in excess to Coast Guard Headquarters in Washington, D.C.

The National Park Service does not as yet have legislative authority to acquire the property.

The Coast Guard has responsiblilty for preservation but not restoration of Fire Island Light until such time as it is disposed of. The Light is structurally sound. The waterproofing sheathing on the exterior of the light, which was applied in the 1960's, is scaling or peeling but does not effect the structure of the light. In effect, the building is returning to its natural historical state. The Coast Guard will continue to preserve the structural integrity of the lighthouse.

Files of FIIS NS/NPS

APPENDIX C159.

JUN 15 '

[illegible] SEASHORE

INIT. DAT

FILE

DESTROY

C-159

United States Department of the Interior

NATIONAL PARK SERVICE

North Atlantic Region
15 State Street
Boston, Massachusetts 02109

REPLY REFER TO

L1425-NAR (L)
FIIS

June 12, 1981

Memorandum

To: Superintendent, Fire Island National Seashore

From: Chief, Land Acquisition Division, NARO

Subject: Fire Island National Seashore - Tract 1703, Deed No. 458

Enclosed are the following documents transferring 37.2 acres of land by the General Services Administration to the Department of the Interior, National Park Service.

1. Letter of April 10, 1981 from Mr. John P. Byrnes transferring the property.

2. Acceptance dated April 16, 1981 of Mr. Paul K. Cotter.

3. Letter of May 11, 1981 transferring custody and accountability and acceptance of May 18, 1981, with enclosures.

Thomas R. Coleman

Thomas R. Coleman

Enclosures

Files of FIIS NS/NPS

General Services Administration · Region 2
26 Federal Plaza
New York, NY 10007

April 10, 1981

NORTH ATLANTIC REGION
16 APR 1981
INITIAL & DATE
DIRECTOR
DEPUTY DIRECTOR
EO
✓ LANDS
PUBLIC AFFAIRS
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
Programs
ARD. OPERATIONS
ARD. PLANNING

Mr. Paul K. Cotter
Acting Chief
Land Acquisition Division
North Atlantic Region
National Park Service
U.S. Department of the Interior
15 State Street
Boston, Massachusetts 02109

Dear Mr. Cotter:

On January 28, 1981, you requested the transfer to the Department of the Interior of approximately 37.2 acres of land, together with improvements thereon, at Fire Island Radio Annex, Fire Island, Suffolk County, New York (U-NY-675D), reported as excess to the needs of the Department of Transportation, U.S. Coast Guard on June 8, 1979.

Pursuant to Public Law 95-625, approved November 10, 1978 which expanded the boundaries of the Fire Island National Seashore, I hereby transfer the aforementioned 37.2 acres of land together with the improvements thereon, described in the enclosed Exhibit "A", to the Department of the Interior. Also enclosed are a map showing the property boundary and a copy of the Act of the State of New York granting this property to the Government. Included among the improvements on this property are a 167-foot-tall brick lighthouse, and a 2-story lighthouse keeper's quarters at the base of the structure, both of which were constructed in 1858 and have been determined eligible for inclusion in the National Register of Historic Places. In accordance with the provisions of Public Law 88-587, approved September 11, 1964, the property is transferred without reimbursement, with the concurrence of the Department of Transportation.

The property is transferred subject to compliance by the Department of the Interior with the provisions of the National Environmental Policy Act of 1969, as amended, and with Section 106 of the National Historic Preservation Act of 1966, the Procedures of the Advisory Council on Historic Preservation, 36 CFR Part 800, Executive Order 11593 and Executive Order 11988.

Captain E.B. Acklin, Chief, Logistics and Property Division, Office of the Comptroller, Department of Transportation, U.S. Coast Guard, (G-FLP-3/53), Washington, D.C. 20593, will act for the Department of Transportation in arranging for the transfer of custody and accountability of the property and in other matters related to the transfer.

-2-

A copy of our letter of today's date to the Department of Transportation is enclosed for your information. It is requested that you acknowledge receipt of this communication in the space provided on the enclosed copy of this letter and return it to this office, and that such steps as are necessary be taken by your agency to consummate the transaction.

Sincerely,

JOHN P. BYRNES
Director
Real Property Division
Federal Property Resources Service

Enclosures

APPENDIX C159.

General Services Administration - Region 2
26 Federal Plaza
New York, New York 10278

April 10, 1981

Mr. Paul E. Cotter
Acting Chief
Land Acquisition Division
North Atlantic Region
National Park Service
U.S. Department of the Interior
15 State Street
Boston, Massachusetts 02109

Dear Mr. Cotter:

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Pursuant to Public Law 95-625, approved November 10, 1978 which expanded the boundaries of the Fire Island National Seashore, I hereby transfer the aforementioned 37.2 acres of land together with the improvements thereon, described in the enclosed Exhibit "A", to the Department of the Interior. Also enclosed are a map showing the property boundary and a copy of the Act of the State of New York granting this property to the Government. Included among the improvements on this property are a 167-foot-tall brick lighthouse, and a 2-story lighthouse keeper's quarters at the base of the structure, both of which were constructed in 1858 and have been determined eligible for inclusion in the National Register of Historic Places. In accordance with the provisions of Public Law 88-587, approved September 11, 1964, the property is transferred without reimbursement, with the concurrence of the Department of Transportation.

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Captain E.B. Acklin, Chief, Logistics and Property Division, Office of the Comptroller, Department of Transportation, U.S. Coast Guard, (G-FLP-3/83), Washington, D.C. 20593, will act for the Department of Transportation in arranging for the transfer of custody and accountability of the property and in other matters related to the transfer.

-2-

A copy of our letter of today's date to the Department of Transportation is enclosed for your information. It is requested that you acknowledge receipt of this communication in the space provided on the enclosed copy of this letter and return it to this office, and that such steps as are necessary be taken by your agency to consummate the transaction.

Sincerely,

JOHN P. BYRNES
Director
Real Property Division
Federal Property Resources Service

Enclosures

✓ cc: Mr. Paul K. Cotter
Acting Chief
Land Acquisition Division
North Atlantic Region
National Park Service
U.S. Department of the Interior
15 State Street
Boston, Massachusetts 02109

RECEIPT ACKNOWLEDGED:

NAME: Paul K. Cotter, Acting Chief

TITLE: Land Acquisition Division

DATE: April 16, 1981

APPENDIX C159.

DEPARTMENT OF TRANSPORTATION
UNITED STATES COAST GUARD

MAILING ADDRESS: (G-FLP-3/5
U.S. COAST GUARD
WASHINGTON, DC 20593
PHONE: 202-426-2030

NORTH ATLANTIC REGION
15 MAY 1981
INITIAL & DATE
DIRECTOR
DEPUTY DIRECTOR
Personnel
Programs
D. OPERATIONS
D. PLA[illegible]

11011/pc
11 MAY 1981

Mr. Paul K. Cotter
Acting Chief, Land Acquisition Division
North Atlantic Region, National Park Service
U. S. Department of the Interior
15 State Street
Boston, Massachusetts 02109

Dear Mr. Cotter:

This is in reference to the transfer of 37.2± acres of land and the improvements thereon at the Coast Guard's Fire Island Annex Station site which was effected by the General Services Administratin (GSA) letter of April 10, 1981, to your office.

In order to complete the transfer action, the U. S. Coast Guard, Department of Transportation, hereby transfers jurisdiction, control, accountability and custody of the property to the National Park Service. Copies of title documents are enclosed for your records.

Please acknowledge receipt and acceptance of this transfer in the space provided, and return two copies to Commandant (G-FLP/53), U. S. Coast Guard, Washington, D.C. 20593.

Sincerely,

[illegible]
Captain, U.S. Coast Guard
Chief, Logistics and Property Division
By direction of the Commandant

Transfer of the Fire Island Radio Annex Station property is accepted this 18th day of May 1981.

National Park Service
U. S. Department of the Interior

By Thomas R. Coleman
Name and Title

Thomas R. Coleman
Chief, Land Acquisition Division

Encl: (1) Title Documents

SCHEDULE "A"

U. S. COAST GUARD FIRE ISLAND RADIO ANNEX (OLD LIGHTHOUSE SITE)

TOWN OF ISLIP, SUFFOLK COUNTY, NEW YORK

All that certain tract of parcel of land situate and lying in Fire Island, Town of Islip, Suffolk County, New York more particularly described as follows:

From a brass moument set in concrete on a line bearing S 27° 58' 23" E from the Fire Island Lighthouse, said monument being 183.50 feet from the southwest corner and 119.00 feet from the southeast corner of the retaining wall surrounding Fire Island Lighthouse, proceed N 83° 00' 07" E a distance of 200.00 feet to a point; thence S 83° 22' 30" E a distance of 608.27 feet to a stone post; said post being the point of beginning. From the point of beginning proceed the following courses and distances: S 2° 48' 16" E a distance of 180.00 feet to a point; thence S 59° 22' 42" W a distance of 818.60 feet to a point; thence S 87° 11' 44" W a distance of 538.00 feet to a point; thence N 2° 48' 16" W a distance of 1,253 feet plus or minus to a point forming the low water mark of Great South Bay; thence in a northeasterly direction along the low water mark a distance of approximately 1,340 feet to a point on the westerly boundary line of the New York State Park Commission property; thence S 2° 48' 16" E a distance of approximately 65 feet plus or minus to a point; thence S 2° 48' 16" E a distance of 1001.62 feet to the point or place of beginning. Containing in all 37.2 acres more or less. All bearings are measured from true north.

CORRECTED

STANDARD FORM 118-A
DECEMBER 1953
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
FPMR (41 CFR) 101-47.202

BUILDINGS, STRUCTURES, UTILITIES, AND MISCELLANEOUS FACILITIES

SCHEDULE A—SUPPLEMENT TO REPORT OF EXCESS REAL PROPERTY

1. HOLDING AGENCY NO. CG-597

2. PAGE 1 OF 4 PAGES OF THIS SCHEDULE

GSA CONTROL NO. (GSA only)

3. ANNUAL RENTAL None

LINE NO. (a)	HOLDING AGENCY BUILDING NO. (b)	DESCRIPTION (c)	COST (d)	OUTSIDE DIMENSIONS (e)	FLOOR AREA (Sq. ft.) (f)*	NO. OF FLOORS (g)*	CLEAR HEAD-ROOM (h)*	FLOOR LOAD RANGE (i)*	RESTRICTIONS ON USE OR TRANSFER OF GOVERNMENT INTEREST (j)
1	1	Dwelling, 2-story, stone, with	43,985	58'x56'	6,496	2			
2		brief and stone masonry foundation.							
3		Foundation is 100'x150'x6' high;							
4		Erected 1858							
5									
6	2	Barracks, 2-story, masonry;	39,308	82'x26'	4,264	2			
7		erected 1921							
8									
9	3	Generator area, 1-story, masonry	2,978	16'-6"x31	511.5	1			
10		attached to westside of barracks;							
11		erected 1915							
12									
13	4	Paint Locker, 1-story, Metal	270.	10'x14'	140	1			
14		erected approx. 1950							
15									
16	5	Transformer Vault Building,		9'x15'	135	1			
17		1-story, masonry; date and cost							
18		of construction unknown							
19									
20	6	Maintenance Shop, attached		29'x38'	1,102				
21		to south side of barracks; date							
22		and cost of construction unknown							
23									
24	7	Garage/Equipment Building 1-story	39,000	62'x25'	1,550	1			
25		brick, contains area 15'x25'							
26		utilized as radio beacon equipment							
27		room (south end of the building);							
28		erected 1966							
29									
30									
31									
32									

STANDARD FORM 118-A
DECEMBER 1953
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
FPMR (41 CFR) 101-47.202

BUILDINGS, STRUCTURES, UTILITIES, AND MISCELLANEOUS FACILITIES

SCHEDULE A—SUPPLEMENT TO REPORT OF EXCESS REAL PROPERTY

OF THIS SCHEDULE

CG-597

GSA CONTROL NO. (GSA use only)

3. ANNUAL RENTAL
None

LINE NO. (a)	HOLDING AGENCY BUILDING NO. (b)	DESCRIPTION (c)	COST (d)	OUTSIDE DIMENSIONS (e)	FLOOR AREA (Sq. ft.) (f)*	NO. OF FLOORS (g)*	CLEAR HEAD-ROOM (h)*	FLOOR LOAD RANGE (i)*	RESTRICTIONS ON USE OR TRANSFER OF GOVERNMENT INTEREST (j)
1	8	Storage Building, wood frame,	1,500.	16'x30'	480	1	-	-	
2		1-story; erected 1942							
3									
4	9	Oil House (Paint Locker), brick	500.	10'x12'	120	1	-	-	
5		1-story erected 1942							
6									
7	10	Storage Building, brick, 1-story	600.	11x14'	154	1	-	-	
8		erected 1942							
9									
10	11	Air conditioning/CO2 system	39,000.	19'x19'	361	1	-	-	
11		area, 1-story, masonry, attached							
12		to east side of barracks;							
13		installed 1951							
14									
15		Light tower, brick, 32" wide at	58,500.	-					
16		base 167' high; erected 1858							
17									
18		Wster supply; well, 3" pipe in	2,588.						
19		6" casing, 100' deep; erected							
20		1939							
21									
22		Water purification system;	2,000.						
23		installed 1963							
24									
25		Sewer system; including plumbing	10,500.						
26		system, 800 gal. septic tank;							
27									
28		Fence, chain link, 6' high 300+',	2,000.						
29		erected 1968							
30									
31		Fuel System - 2-600 gal. steel	200.						
32		tanks; Installed							
		Sub-TOTAL	117,388		1,115				

*Prefix figures with symbols to denote type of space, as follows: (a) for office; (b) for storage; (c) for other

CORRECTED

STANDARD FORM 118-A
DECEMBER 1953
PRESCRIBED BY GENERAL SERVICES ADMINISTRATION
FPMR (41 CFR) 101-47.202

BUILDINGS, STRUCTURES, UTILITIES, AND MISCELLANEOUS FACILITIES

SCHEDULE A—SUPPLEMENT TO REPORT OF EXCESS REAL PROPERTY

1. HOLDING AGENCY NO. CG-597

2. PAGE 3 OF 4 PAGES OF THIS SCHEDULE

GSA CONTROL NO. (GSA use only)

3. ANNUAL RENTAL None

LINE NO. (a)	HOLDING AGENCY BUILDING NO. (b)	DESCRIPTION (c)	COST (d)	OUTSIDE DIMENSIONS (e)	FLOOR AREA (Sq. ft.) (f)*	NO. OF FLOORS (g)*	CLEAR HEAD-ROOM (h)*	FLOOR LOAD RANGE (i)*	RESTRICTIONS ON USE OR TRANSFER OF GOVERNMENT INTEREST (j)
1		Oil Burner (improved roofing,	12,000.						
2		fire protection system) Installed							
3		1961							
4									
5									
6									
7									
8									
9		Sanitary System, 1500 gal. septic	5,000						
10		tank; erected 1961							
11									
12		Lift Pump Station and expanded	9,000.						
13		seepage field; erected 1968							
14									
15		Garage/Equipment Parking pavement	7,000						
16		asphalt; construction 1966							
17									
18		Roadway, asphalt pavement;	9,000.						
19		constructed 1965							
20									
21		Water System 2" diameter, plastic							
22		line approx. 1,200 LF, taps into							
23		Long Island Park Commission							
24		artesin well 600' deep; 5"							
25		diameter casing; date and cost							
26		of construction, unknown							
27									
28		T-Pier, wooden, 8' wide x 280';	14,120.						
29		T section 10' wide x 47' 10";							
30		constructed 1939							
31									
32									
		Sub-TOTAL	56,120						

APPENDIX C159.

STANDARD FORM 118-A
DECEMBER 1953
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
FPMR (41 CFR) 101-47.202

BUILDINGS, STRUCTURES, UTILITIES, AND MISCELLANEOUS FACILITIES

SCHEDULE A—SUPPLEMENT TO REPORT OF EXCESS REAL PROPERTY

OF THIS SCHEDULE

GSA CONTROL NO. (GSA use only)

CG-597

3. ANNUAL RENTAL

None

LINE NO. (a)	HOLDING AGENCY BUILDING NO. (b)	DESCRIPTION (c)	COST (d)	OUTSIDE DIMENSIONS (e)	FLOOR AREA (Sq. ft.) (f)*	NO. OF FLOORS (g)*	CLEAR HEAD-ROOM (h)*	FLOOR LOAD RANGE (i)*	RESTRICTIONS ON USE OR TRANSFER OF GOVERNMENT INTEREST (j)
1		Conical monopole antenna;	3,000.						
2		erected 1963							
3									
4		Antenna pole, 3 ea., wood, 90'	unknown						
5		high with 120 radial ground rods							
6		(150' radius) previously used as							
7		medium frequency comm. antenna;							
8		Date erected and cost unknown							
9									
10		Boardwalk, wood, approx. 870 LF x	600.						
11		5' wide. Constructed 1939							
12									
13		Fence, chain-link, approx. 94 LF	unknown						
14		6' high around radio beacon tower;							
15		Date erected and cost unknown							
16									
17		Tower, 125', radio beacon, open							
18		framed, steel with radial ground							
19		system; date erected and cost							
20		unknown							
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
31									
32									
		TOTAL	$302,649.		15,313.5				

*Prefix figures with symbols to denote type of space, as follows: (a) for office; (b) for storage; (c) for other.

CORRECTED

STANDARD FORM 118-B
DECEMBER 1953
PRESCRIBED BY GENERAL
SERVICES ADMINISTRATION
FPMR (41 CFR) 101-47.202

LAND

SCHEDULE B—SUPPLEMENT TO REPORT OF EXCESS REAL PROPERTY

1. HOLDING AGENCY NO. CG-597

2. PAGE 1 OF 1 PAGES OF THIS SCHEDULE

3. GOVERNMENT INTEREST
☐ LEASE ☐ LICENSE
☐ PERMIT ☐ EASEMENT
☒ FEE ☐ INFORMAL AGREEMENT

GSA CONTROL NO. (GSA use only)

LINE NO. (a)	TRACT NO. (b)	NAME OF FORMER OWNER OR LESSOR AND ADDRESS (c)	TRACT ACQUIRED (Acres or sq. ft.) (d)	EXCESS REAL PROPERTY ACRES [redacted] (e)	EXCESS REAL PROPERTY COST (f)	EXCESS REAL PROPERTY ANNUAL RENTAL (g)	TYPE OF ACQUISITION (h)	RESTRICTIONS ON USE OR TRANSFER OF GOVERNMENT INTEREST (i)
1	1	State of New York	122.±	37.2±	15.00	Cession		
2								
3								
4		For accounting purposes only.						
5		Land, 122.0 acres originally						
6		acquired for $50.						
7								
8		Note that approximately						
9		3.7+ acres of land adjacent						
10		on the northerly side of						
11		parcel eroded and is presently						
12		under water.						
13								
14		81.4+ acres were disposed of						
15		by Coast Guard Report						
16		No. CG-422 of 5/21/71-GSA Control						
17		No. U-NY-675 applies.						
18		This property is subject to flooding						
19		during storms and high tides due to						
20		its coastal location.						
21								
22		There is no known indication of						
23		mineral development at the site.						
24								
25		There are no known dangers of						
26		hazards to health and safety.						
27								
28								
29								
30								
31								
32								

Form No 10-306 (Rev 10-74)

UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

NATIONAL REGISTER OF HISTORIC PLACES INVENTORY -- NOMINATION FORM

FOR FEDERAL PROPERTIES

FOR NPS USE ONLY
RECEIVED
DATE ENTERED

SEE INSTRUCTIONS IN *HOW TO COMPLETE NATIONAL REGISTER FORMS*
TYPE ALL ENTRIES -- COMPLETE APPLICABLE SECTIONS

1 NAME

HISTORIC Fire Island Light Station

AND/OR COMMON Same

2 LOCATION

STREET & NUMBER Robert Moses Causeway ☐ NOT FOR PUBLICATION

CITY, TOWN Bay Shore ☒ VICINITY OF — CONGRESSIONAL DISTRICT 02

STATE New York — CODE 36 — COUNTY Suffolk — CODE

3 CLASSIFICATION

CATEGORY
- ☐ DISTRICT
- ☐ BUILDING(S)
- ☒ STRUCTURE
- ☐ SITE
- ☐ OBJECT

OWNERSHIP
- ☒ PUBLIC
- ☐ PRIVATE
- ☐ BOTH

PUBLIC ACQUISITION
- ☐ IN PROCESS
- ☐ BEING CONSIDERED

STATUS
- ☒ OCCUPIED
- ☒ UNOCCUPIED
- ☐ WORK IN PROGRESS

ACCESSIBLE
- ☒ YES RESTRICTED
- ☐ YES UNRESTRICTED
- ☐ NO

PRESENT USE
- ☐ AGRICULTURE
- ☐ COMMERCIAL
- ☐ EDUCATIONAL
- ☐ ENTERTAINMENT
- ☐ GOVERNMENT
- ☐ INDUSTRIAL
- ☐ MILITARY
- ☐ MUSEUM
- ☒ PARK
- ☐ PRIVATE RESIDENCE
- ☐ RELIGIOUS
- ☐ SCIENTIFIC
- ☐ TRANSPORTATION
- ☐ OTHER

4 AGENCY

REGIONAL HEADQUARTERS *(If applicable)* National Park Service, North Atlantic Region

STREET & NUMBER 15 State Street

CITY, TOWN Boston — ☐ VICINITY OF — STATE Massachusetts

5 LOCATION OF LEGAL DESCRIPTION

COURTHOUSE, REGISTRY OF DEEDS, ETC Land Acquisition Division, National Park Service, North Atlantic Region

STREET & NUMBER 15 State Street

CITY, TOWN Boston, — STATE Massachusetts

6 REPRESENTATION IN EXISTING SURVEYS

TITLE U.S. Coast Guard, 3d Dist., "Fire Island Station [illegible]

DATE 18 June 1975, revised 8-7-

DEPOSITORY FOR SURVEY RECORDS National Park Ser

CITY, TOWN Boston — STATE Massachusetts

7 DESCRIPTION

CONDITION		CHECK ONE	CHECK ONE
_EXCELLENT	_DETERIORATED	_UNALTERED	X_ORIGINAL SITE
_GOOD	_RUINS	X_ALTERED	_MOVED DATE_____
X_FAIR	_UNEXPOSED		

DESCRIBE THE PRESENT AND ORIGINAL (IF KNOWN) PHYSICAL APPEARANCE

The Fire Island Light Station is situated 5 miles east of the western end of Fire Island, a barrier island off the southern coast of Long Island. It consists of a lighthouse and an adjacent keeper's quarters sitting on a raised terrace. The lighthouse tower, completed in 1858, is a conical tower with hyperbolic curved profile becoming cylindrical near the top. The height of the tower, from foot to cornice, is 140 feet, with an additional 24 feet to enclose the watch room and the lantern. The focal plane of the light is approximately 168 feet above sea level. The diameter of the tower at its base is 32 feet; at its top, 15 feet. The cornice is of granite and was originally in the Doric order with six pilasters, now missing or covered with concrete. It supports an iron-railed projecting gallery. The tower is constructed of brick. By 1876 it was coated with a cement wash, giving it a cream color. In 1891, it was covered with asphalt paint, overpainted with white to produce four horizontal black and white stripes. The tower was coated with reinforced concrete in 1912 and painted with the same stripes. There is a hollow central column of cast iron, which originally contained the clock weights, and a spiral staircase with cast iron open-work treads. The original light was a first order revolving catadioptric system with Fresnel lens, visible for 21-23 nautical miles from 15 feet above sea level. A Funck mechanism was installed in 1869. Whale oil was used until 1867; lard oil until 1884; mineral oil (kerosene) until 1907; incandescent oil vapor until 1939; electricity thereafter. A Western Union telegraph service was installed in 1878; telephone in 1898; wireless telegraphy experiments were conducted in 1901.

The adjacent Keeper's residence, which also contained the oil storage rooms, was completed in 1859. It was originally connected to the tower by a covered passage, now missing. The two-story building now contains thirteen rooms divided into two apartments, plus full attic and basement. It is faced with rough coursed granite. The terrace on which both structures sit is approximately 15 feet high and faced with stone, the stone coming from the first Fire Island lighthouse and keeper's house (1826). Parts of the south and east walls of the terrace were replaced in 1901. The terrace measures 148 feet north to south, by 97 feet east to west. There is a small metal shed on the northeast corner of the terrace.

SIGNIFICANCE

PERIOD

_PREHISTORIC
_1400-1499
_1500-1599
_1600-1699
_1700-1799
_1800-1899
_1900-

AREAS OF SIGNIFICANCE -- CHECK AND JUSTIFY BELOW

_ARCHEOLOGY-PREHISTORIC
_ARCHEOLOGY-HISTORIC
_AGRICULTURE
_ARCHITECTURE
_ART
X COMMERCE
_COMMUNICATIONS

_COMMUNITY PLANNING
_CONSERVATION
_ECONOMICS
_EDUCATION
X ENGINEERING
_EXPLORATION/SETTLEMENT
_INDUSTRY
_INVENTION

_LANDSCAPE ARCHITECTURE
_LAW
_LITERATURE
X MILITARY
_MUSIC
_PHILOSOPHY
X POLITICS/GOVERNMENT

_RELIGION
_SCIENCE
_SCULPTURE
_SOCIAL/HUMANITARIAN
_THEATER
_TRANSPORTATION
_OTHER (SPECIFY)

SPECIFIC DATES 1858-59

BUILDER/ARCHITECT J.T.Morton, construction supv.

STATEMENT OF SIGNIFICANCE

The current Fire Island lighthouse was completed in 1858 to replace the first Fire Island light, which had been put into service in 1826 and whose foundation is about 200 yards southwest of the current station. In 1826, the light was at the western tip of Fire Island, adjacent to Fire Island Inlet, which connects the Atlantic Ocean with Great South Bay. Littoral drift causes Fire Island to "migrate" westward at the rate of about one mile every 25 or 30 years, so that now the site of the lighthouse is five miles east of the current inlet.

The Federal government took jurisdiction over lighthouses on August 7, 1789, in one of the earliest assertions of federal power over the powers of the separate states. The first Fire Island light was constructed during a wave of lighthouse building in the 1820's and 30's; and the second, during a wave of building and renovation in the 1850's. The ultimate goal was to make the Atlantic coast a lighted highway of commerce, and the Fire Island lights filled the gap between the Montauk Point Light to the east and the Sandy Hook Light to the west. As New York emerged as the most important American port in the transatlantic trade, the Fire Island light emerged as the most important light station on the East Coast, since it was the first landfall for ships approaching New York harbor on the Atlantic routes. A shoal about a mile off-shore was the cause of numerous shipwrecks. Thus the second Fire Island light was 80 feet taller and had a more powerful light than its predecessor and than the neighboring lights to the east and west. Its finely proportioned curved profile and its original Doric details gave it architectural distinction.

Fire Island Light Station also served important non-navigational functions in the nineteenth century, with the keeper and his assistants serving as "mayors" of Fire Island, assisting baymen , and serving as inn-keepers to rich urbanites seeking primitive recreational experiences away from the city. The Fire Island Light Station was decommissioned by the Coast Guard in 1974.

9 MAJOR BIBLIOGRAPHICAL REFERENCES

National Archives and Record Service, Record Group 25.
Francis Ross Holland, Jr., America's Lighthouses, Their Illustrated History since 1716 (Brattleboro, Vt., 1972).
Henry Bang, The Fire Island Lighthouse (to be published, 1981).

10 GEOGRAPHICAL DATA

ACREAGE OF NOMINATED PROPERTY 1/3

UTM REFERENCES

	ZONE	EASTING	NORTHING		ZONE	EASTING	NORTHING
A	18	650625	4499225	B			
C				D			

VERBAL BOUNDARY DESCRIPTION

The nominated structures occupy a site measuring approx. 148 by 97 feet and sit in a tract of 90 acres bounded on the north by Great South Bay, on the south by the Atlantic Ocean, on the west by Robert Moses State Park, and on the east by Robert Moses State Park-East Unit.

LIST ALL STATES AND COUNTIES FOR PROPERTIES OVERLAPPING STATE OR COUNTY BOUNDARIES

STATE	CODE	COUNTY	CODE
STATE	CODE	COUNTY	CODE

11 FORM PREPARED BY

NAME / TITLE
Steven Kesselman, Historian

ORGANIZATION
Fire Island National Seashore

DATE
April 17, 1981

STREET & NUMBER
120 Laurel Street

TELEPHONE
(516) 289-4810

CITY OR TOWN
Patchogue

STATE
New York

12 CERTIFICATION OF NOMINATION

STATE HISTORIC PRESERVATION OFFICER RECOMMENDATION

YES____ NO____ NONE____

STATE HISTORIC PRESERVATION OFFICER SIGNATURE

In compliance with Executive Order 11593, I hereby nominate this property to the National Register, certifying that the State Historic Preservation Officer has been allowed 90 days in which to present the nomination to the State Review Board and to evaluate its significance. The evaluated level of significance is ____National ____State ____Local.

FEDERAL REPRESENTATIVE SIGNATURE

TITLE

DATE

FOR NPS USE ONLY

I HEREBY CERTIFY THAT THIS PROPERTY IS INCLUDED IN THE NATIONAL REGISTER

DATE

DIRECTOR, OFFICE OF ARCHEOLOGY AND HISTORIC

ATTEST:

KEEPER OF THE NATIONAL REGISTER

APPENDIX C161.

CLASSIFIED STRUCTURE FIELD INVENTORY REPORT

(Attach 4" x 5" B & W Photo)

ION North Atlantic PARK/AREA NAME Fire Island Nat'l Seashore PARK NUMBER 1750

RUCTURE NAME Keeper's Residence STRUCTURE NUMBER HS14

)CATION OF STRUCTURE Robert Moses Causeway, Bay Shore NY (Suffolk Co.)

T'L REGISTER: ~~5- Eligible, SHPO~~ Entered date: 9/11/81 mm/dd/yy MANAGEMENT CATEGORY: (A) [✓ (B)] (C)

PS LEGAL INTEREST: FEE MGMT AGREEMENT: NO

ieck all of the following categories for which NPS has treatment responsibility:

abilization(X) Cyclic maintenance(X) Routine maintenance(X) Approved ultimate treatment

PPROVED ULTIMATE TREATMENT:

reservation	(PP)	Restoration	(RR)	Reconstruction	(CC)
daptive Preservation	(AP)	Adaptive Restoration	(AR)	Adaptive Reconstruction	(AC)
eglect	(NG)	Remove	(RM)	No Approved Treatment	(NO)

pproval document: ( ) Document date: mm/dd/yy

stimated Treatment Costs:

abilization: $ date:

roved Treatment: $ date: mm/dd/yy

Level of Estimate: (A) (B) (C) Estimator: (Region) (DSC) (A&E) (

ESCRIPTION:

Period of Construction: HI Type of Structure: BU (

Composition: ST Current Interior Use: NQ (

erbal description: The Keeper's Residence, built in 1859, is adjacent to the Lighthouse Tow At one time, it contained the oil storage rooms. It was originally connected to the tower a covered passage, now missing. The two-story building now contains thirteen rooms divided into two apartments, plus full attic and basement. It is faced with rough coursed granite. The terrace on which both structures sit is approximately 15 feet high and faced with stone the stone coming from the first Fire Island lighthouse and keeper's house (1826). Parts of the south and east walls of the terrace were replaced in 1901. The terrace measures 148 Fe north to south, by 97 feet east to west. There is a small metal shed on the northeast corne of the terrace.

continue on additional page(s) if necessary

structure has been removed, how ? (

eport prepared by: date: [illegible]

APPENDIX C161.

CLASSIFIED STRUCTURE FIELD INVENTORY REPORT

(Attach 4" x 5" B & W Photo)

GION North Atlantic PARK/AREA NAME Fire Island Nat'l Seashore PARK NUMBER 1750

STRUCTURE NAME Lighthouse Tower STRUCTURE NUMBER HS13

LOCATION OF STRUCTURE Robert Moses Causeway, Bay Shore NY (Suffolk Co.)

) NAT'L REGISTER: ~~5 Eligible, SHPO~~ Entered date: ~~4/17/81~~ 9/11/81 mm/dd/yy MANAGEMENT CATEGORY: (A) [✓ (B)] (C

) NPS LEGAL INTEREST: FEE MGMT AGREEMENT: NO

Check all of the following categories for which NPS has treatment responsibility:

Stabilization(X) Cyclic maintenance(X) Routine maintenance(X) Approved ultimate treatme

APPROVED ULTIMATE TREATMENT:

Preservation	(PP)	Restoration	(RR)	Reconstruction	(CC)
Adaptive Preservation	(AP)	Adaptive Restoration	(AR)	Adaptive Reconstruction	(AC)
Neglect	(NG)	Remove	(RM)	[✓ No Approved Treatment]	[✓ (NO)]

Approval document: ( ) Document date: mm/dd/yy

Estimated Treatment Costs:

abilization: $ 150,000 date: 3/5/81 Level of Estimate: (A) (B) [✓ (C)] Estimator: [✓ (Region)] (DSC) (A&E)

proved Treatment: $ date: mm/dd/yy

DESCRIPTION:

) Period of Construction: HI Type of Structure: BU

) Composition: BK,CO,ST Current Interior Use: 00

Verbal description: The Lighthouse Tower, completed in 1858, is a conical tower with hyper curved profile becoming cylindrical near the top. The height of the tower, from foot to cornice, is 140 feet, with an additional 24 feet to enclose the watch room and the lantern The focal plane of the light is approximately 168 feet above sea level. The diameter of th tower at its base is 32 feet; at its top, 15 feet. The cornice is of granite and was orig in the Doric order with six pilasters, now missing or covered with concrete. It supports iron-railed projecting gallery. The tower is constructed of brick. By 1876 it was coated with a cement wash, giving it a cream color. In 1891, it was covered with asphalt paint, overpainted with white to produce four horizontal black and white stripes. The tower was coated with reinforced concrete in 1912 and painted with the same stripes. There is a hol central column of cast iron, which originally contained the clock weights, and a spiral sta case with cast iron open-work treads. The original light was a first order revolving catadioptric system with Fresenl lens, visible for 21-23 nautical miles from 15 feet above sea level. A Funck mechanism was installed in 1869. Whale oil was used until 1867; lard until 1884; mineral oil (kerosene) until 1907; incandescent oil vapor [illegible] thereafter. A Western Union telegraph service was installed in 1878; [illegible] less telegraphy experiments were conducted in 1901.

continue on additional page(s) if necessary

structure has been removed, how ? ( ) date:

Report prepared by: date: August [illegible]

APPENDIX C162.

United States Department of the Interior
NATIONAL PARK SERVICE
Fire Island National Seashore
120 Laurel Street
Patchogue, New York 11772

IN REPLY REFER TO:

December 13, 1983

RECOMMENDED TREATMENTS, FIRE ISLAND LIGHT STATION

Guidance in selecting appropriate interpretive themes and architectural treatments for the Fire Island Light Station is provided by the *Management Policies* of the National Park Service and the *Cultural Resources Management Guidelines* (NPS-28), as well as by the following documents:

General Management Plan, Fire Island National Seashore, 1978.

Final Environmental Statement, General Management Plan, Fire Island National Seashore, 1978

Interpretive Prospectus, Fire Island National Seashore, 1978.

Historic Structure Report, Fire Island Light Station, draft 1983.

National Register of Historic Places, nomination and listing of the Fire Island Light Station, 1981.

Additional guidance is provided by:

Final Report on a Document Review and an Archeological Reconnaissance of the William Floyd Estate and the Fire Island Lighthouse Tract, 1977

"Recommended Development Concepts, Fire Island Lighthouse Tract," 1977.

Environmental Inventory of Fire Island National Seashore and the William Floyd Estate, 1975.

The Fire Island Light Station was built in 1858-59. It consisted of a lighthouse tower, completed in 1858 and first lighted on November 1, 1858, a Keeper's Quarters connected to the tower by a covered stone passageway, and a 100;x150' raised stone terrace on which the structures sit. The United States Coast Guard decommissioned and extinquished the light at midnight on December 31, 1973, replacing it with an automated strobe on the water tower at Robert Moses State Park.

The entire Lighthouse Tract of land under National Seashore management consists of approximately 118.6 acres, lying between the heavily used Robert Moses State Park on the west and the little used and undeveloped East Unit of the State Park. (Steps have been initiated to effect a transfer of the East Unit to the Seashore.) The tract has been the site of numerous other activities and structures in addition to the Light house, including a U.S. Life-Saving Service Station and a U.S. Coast Guard Station, neither of which is extant. A Naval Radio Annex is still standing about 1000 feet east of the Light Station.

The main Radio Annex building--the barracks--a two-story masonry structure, was erected in 1921, but has one ell built in 1915 to hold a directional finder, and two other wings of unknown, but subsequent, date. A watch tower, removed from Fire Island to the mainland and soon to be returned to the beach at a site adjacent to the barracks, was built in the late 1930's. Two small structures north of the main building were built in 1942; and a larger building (garage and equipment storage) was built in 1966. The 1915 ell of the barracks contains two large generators installed in the mid-1950's. The east side of the barracks contains a large double bank of radio transmitters installed in 1943. Part of the garage was used by the Coast Guard for radio beacon equipment until 1983.

In 1971, the Coast Guard declared 81.4 acres of the Lighthouse Tract (not including any of the structures) excess property. Fire Island National Seashore began using some of the parcel and portions of the structures under licenses from the Coast Guard in 1972. A five-year license, running from March 1, 1974, to January 31, 1979, consolidated the previous licenses and gave the Seashore use of the whole area, reserving to the Coast Guard part of the Keeper's Quarters until November 30, 1974, and part of the garage, to be reliquished in 1983. The Seashore has since then been using the Keeper's Quarters for staff housing, and one wing of the barracks building as a vehicle check point and ranger office. On April 3, 1972, a fire on the second floor of the main section of the Annex building seriously damaged it, and it has not been used.

Little could be done to arrest the rapid deterioration of all the structures in the Tract until the Seashore was given custody of the area. Public Law 95-625 (National Parks and Recreation Act, November 10, 1978) included the Lighthouse tract within the boundaries of the Seashore, and custody of the 81.4 vacant acres was transferred to the National Park Service on August 16, 1979. Custody of the remaining 37.2 acres, including all the structures, was transferred on April 10, 1981. At that time, the Light Station was nominated to the National Register of Historic Places; it was listed on September 11, 1981.

The structures in the Annex complex--part of the same 37.2 acre parcel as the Light Station--while having historical interest, were not deemed of such significance or integrity as to warrant nomination. They will, nevertheless, be accorded the protections given to older structures by NPS-28, the Cultural Resources Management Guideline. In addition, their proximity to the Light Station, their easy identification as former Coast Guard structures, their relative isolation--together with the Light Station--from developed areas, and the interpretive boardwalk that will link them to the Light Station--all impel that consideration be given to their mutual interpretive impact.

The approved General Management Plan proposes "major historical interpretation, natural history interpretation and environmental education" as the primary visitor activities in the 118-acre tract. The lighthouse will be available for conducted interpretive tours, with not more than sixteen visitors per hour within the structure. The Lighthouse keeper's quarters will be used as a small maritime museum interpretive center, and information center. The Radio Annex complex will be renovated as a day-use environmental education center. Additional historical and natural interpretation will be provided by an interpretive trail that will connect the Annex and the Light Station and include both the foundation of the first Fire Island Lighthouse and the natural area on the Bay, or north side. Visitation to the Light Station is projected at a maximum of 800 per day by 1987 and 1000 per day in the tract as a whole.

The proposed uses, as detailed in the General Management Plan, were formulated with the active participation of interested citizens and officials and of professional specialists in history, archeology, historic architecture, natural resources management, environmental sciences, engineering, and park management, both inside and outside the National Park Service. Comments were solicited and received from the New York State Historic Preservation Officer and from the Advisory Council on Historic Preservation. The GMP was granted "approved plan" status by the Advisory Council on Historic Preservation. The environmental impacts of the proposed uses were assessed in the approved Final Environmental Statement for the GMP. The choice of specific architectural treatments warranted further consultations and compliance procedures.

GENERAL CONSIDERATIONS

Several general considerations bear on the assessment of possible architectural treatments of the Fire Island Light Station.

1. Prior decisions regarding the Light Station

a. The prescribed and approved treatment of the Keeper's Quarters is adaptive reuse as a maritime museum, interpretive center, and information center. No attempt will be made either to preserve the interior in its current condition as a staff residence or to restore it to an earlier historic period. The GMP proposes that the Lighthouse itself, however, be "preserved" (pp. 26,72), "stabilized" (85), and "restored" (87). The varying terminology indicated that the issue of appropriate treatments of the tower and of the exterior of the Keeper's Quarters was being deferred, pending the transfer of custody from the Coast guard to the National Park Service (not accomplished until 1981) and the completion of a historic structure report.

Both the approved Interpretive Prospectus, pp. 18-20, and the memorandum, "Recommended Development Concepts," propose a "restoration" to a condition representative of the pre-electrification era, specifically within the 1891-1939 period, but again deferring decision until a historic structure report can "further define the identity of the exact period of use." Both documents express concern that the treatments of the structures be historically compatible with each other. Neither document, however, is considered a decision-making document.

b. The light will be rekindled. This will mark the triumphant end of the major fund-raising effort to save the Lighthouse, and the light will then be maintained as a private aid to navigation. The light mechanism will necessarily be a modern electrical one; but the signal, governed by current Coast Guard requirements, may not reproduce any historic pattern.

2. The significance of the site

The Fire Island Light Station was listed on the National Register of Historic Places in 1981 for both its historical significance and its architectural merit. While its official significance is regional, it, like nearly all lighthouses, has symbolic associations that give it historical resonance on every level from the local to the national. Lighthouses in general are structures built to keep things from happening; and the noteworthy events associated with them, other than their construction or demolition, are usually their failures--the shipwrecks they were intended to prevent. Therefore, one looks not for a specific event on a specific date to define a lighthouse's significance, but for a series of connections to larger trends or movements for which it can serve as a salient example.

The objective local significance of the Fire Island Light Station derives partly from its role as a day-mark and night-signal for those who used the resources of the nearby bay and ocean and partly from the role that the Keepers and their assistants and families played in South Shore life. The Lighthouse retained this local significance until the light was extinguished at the end of 1973; the Keeper's Quarters lost much of its local role with the integration of its personnel into the national cohort of the Coast Guard and the extensive community and resort development following World War II. The Light Station's symbolic local significance remains important. The Fire Island Light is not only the most visible structure on Fire Island, it is also the oldest. It is therefore an appropriate symbol for the historical evolution of the barrier island and of a local economy whose more representative structures--beach houses, small craft, boatyards, and docks--have usually been short-lived. The Light Station has also become the symbol of the natural evolution of the area, as its initial placement at the original western tip of Fire Island is the most graphic example of barrier beach dynamics.

The regional significance of the Light Station derives from its connection to the rise of New York as the American metropolis. New York's emergence as the most important American port in the transatlantic trade made the Fire Island Light the most important light on the East Coast. It retained this importance throughout its history until it was extinguished at the end of 1973, though early in the century other forms of navigational aids began to supersede it.

Nationally, the Fire Island Light Station serves as a symbolic structure illustrating the evolution of national involvement in public works, interstate and foreign commerce, and coastal defense. These national themes may be illustrated at other sites in other locations; but in this area, the Fire Island Light is the salient structure. The light itself was also the first landfall for ships approaching New York from Europe, and so it was usually the first American structure seen by the millions of immigrants who entered during the peak years of immigration between 1880 and 1910.

The architectural merit of the Light Station is high. Exceptionally well designed, it has a graceful curved profile and was built with a number of attractive architectural details, some of which were covered by a thick reinforced concrete coating in 1912. The exterior of the Keeper's Quarters is similarly marred by later alterations, such as the crude filling of windows and doorways with concrete blocks and cement. These alterations may still, however, be considered evidence of changing historic uses of the building.

3. The needs of the structures

In certain cases, the structural problems of a building create imperatives for treatment that must be weighed along with previous commitments and historical judgments. Lacking an interim period of overarching significance, the choice of treatment would usually be between restoration of the structure as originally built, on the one hand, and preservation of it as acquired or last used, on the other. Ordinarily, the treatment of choice indicated by NPS Management Policies is preservation.

In the case of the Fire Island Light Station, the thick reinforced concrete coating that was put on the Lighthouse in 1912 is the major structural problem posed by the buildings. It cannot be repaired in place with any expectation of long-term success, and it will have to be removed. A new coating will be required to protect the structure. Duplicating the thickness of the existing coating is likely to recreate its problems. The most acceptable coating will approximate the thickness of the original thin coating and its replacements until 1912. This may reveal significant architectural details--notably the pilasters at the top of the tower, which may survive under the concrete--that have not been visible since that date, altering the Lighthouse's current appearance. This fact must be considered in any assessment of alternative treatments.

PERIODIZATION AND ASSESSMENT

The draft Historic Structure Report reveals that changes affecting the Light Station's appearance were made piecemeal throughout its history. However, the major eras in the complex's structural history and its larger historical significance can be grouped into four periods useful for assessment:

1. 1858-59: The light tower was completed in 1858 and the rest of the Light Station (Keeper's Quarters and Terrace) the following year. The tower had a thin coating over the brick and was cream in color. (It was painted about every decade thereafter, with the color varying from cream to yellow ochre until 1891, when the black and white stripes were put on.) The roof of the Keeper's Quarters was slate.

   Restoring the Light Station to its appearance in 1858-59 would show the complex as originally designed and intended, thereby satisfying esthetic judgments. Historically, the complex could symbolize the recognition of New York as the major port in the transatlantic trade and the renewal and reorganization of federal initiatives in maritime life. It could represent life on Fire Island just before its transformation into a major resort and recreational area and the solidification of Long Island's ties to the metropolitan region. A restoration to this period would be compatible with the proposed thin coating for the tower. The lighthouse would lose its characteristic day-mark identity (the stripes). The restoration would be based on scanty documentary and physical evidence, raising the likelihood of inaccuracy. The evidence of later periods of history would be treated as less significant and would be removed.

2. 1902-1911: This alternative would restore the Light Station to its appearance just prior to the application of the reinforced concrete coating on the tower. A number of changes in appearance, made one by one over the previous five decades, would be represented: the addition of the fence around the terrace (1873); the replacement of the Keeper's Quarters slate roof with wood shingles (1887); the placement of shutters on the windows of the Quarters (1899); the rebuilding of the terrace (1901); the remodeling of the gallery at the lantern (1902); and , most prominently, the painting of the black and white day-mark stripes on the tower (1891).

   A restoration to this era would require the fewest changes to the existing Lighthouse tower to make it compatible with architectural details that may be revealed by the proposed new coating, though the Keeper's Quarters would require restoration and the passageway between the Quarters and the tower would have to be reconstructed. This was the last era in which the details of the Light Station as designed and built were still visible. The documentation for this period is extensive, though not as extensive as for later periods. Historically, this period could represent the peak of the light's objective national significance in that it was the high point of the immigration past it and it marks the end of the era of significant lighthouse construction in the continental United States. The local history of the light would be foreshortened since the evidence of later periods, those best remembered by people now living, would be treated as less significant and would be removed.

3. 1939*: This alternative would restore the Light Station to its appearance after a series of major changes were made to the Keeper's Quarters and before the Keeper's Quarters were separated in function and structural integrity from the Light Tower. Changes made between 1911 and 1939, and still visible, would be represented: the building of a skylight on the roof of the Quarters; the alteration of its chimneys; the loss of the oil house on the northeast corner of the terrace; the replacement of the wood-shingled Quarters roof with asphalt shingles; and, most prominently, the electrification of the light itself. The installation of the reinforced concrete coating on the tower in 1912 would not be represented which would be an inconsistency in a restoration to this period.

   Historically, this period carries the story of the Light Station up through the electrification of the light and the change in administration from the Lighthouse Bureau to the Coast Guard, which already had a station in the tract. This unified the administration of the 118-acre area. With the growing overseas dangers that led to American involvement in World War II, this period marks the transition of the Light Station from the commercial function of assisting mariners to the military function of coastal and harbor defense. The advent of control by the Coast Guard, with its national, rather than local, membership, and with its assignment of personnel only part of whose duties related to the light, also brought to a close the personal aspects of the Light Station's involvement in local life. A restoration to this period would require the reconstruction of the passageway between the Quarters and the tower; and the windows and doors in the Quarters which were later blocked up would have to be restored.

4. 1973: The light was extinguished at midnight December 31, 1973. Structural changes made between 1939 and 1973 (all of them made after 1950) would be preserved: the removal of the passageway between the Quarters and the Tower; the filling in of the windows in the Quarters; the changed Quarters window sash; and the addition of a rear porch to the Quarters. The new thinner coating on the tower would be an inconsistency in a "restoration" to this period.

   Historically, this period preserves the entire history of the complex as an active light station, including the final automation of the light in 1968 and the Coast Guard's declining interest in maintaining the integrity of the station. This would be symbolized by the removal of the passageway about 1950 and by the transformation of the Keeper's Quarters into a barracks and utility building. Since the Lighthouse itself would look the same in Alternatives 3 and 4, its history between 1939 and 1973 would in fact be represented primarily by the changes made to the Keeper's Quarters after it ceased having an organic relationship to the light.

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*Note: An option discussed in earlier draft assessments--a restoration to ca. 1958--has, upon further research, turned out to be not viable. The idea that the "last keeper" completed his tenure at that time has proved to be more folklore than historical fact, as the Coast Guard did not make such distinctions among its personnel assigned to the Light after it took control. As well, the removal of the passageway, which was thought to have occurred in 1958 and which therefore seemed the key symbol representing the Coast Guard's declining interest in maintaining manned lighthouses,

RECOMMENDATION

The complex structural history of the Light Station, the range of decisions and commitments about its use made as far back as the Coast Guard era, and the structural treatments dictated by the tower's problems, all mean that any choice of period will be to some degree arbitrary or unsatisfactory. Since the Lighthouse itself, after the prescribed treatment, would be virtually identical in Alternatives 3 and 4 (1939 and 1973) and nearly identical in Alternative 2 (1911), the interpretive burden is borne primarily by the Keeper's Quarters.

The two most significant dates in the Light Station's history--the date it was built (1858-59) and the date it was extinguished (1973)--are unsatisfactory choices. A restoration to 1858-59 would deprive the light of its history in favor of a largely conjectural esthetic treatment. A "restoration" to 1973 would celebrate a period of decline and neglect.

Within these two boundary dates, the two lesser milepost dates have both attractions and drawbacks. Alternative 2, a restoration to 1911, would probably allow the most nearly consistent structural restoration, since the Keeper's Quarters would be restored to the point at which it suited the new thin coating to be put on the Tower. However, the historical significance of the period is not compelling; the light's local and national history would be severely foreshortened; and the light itself--relit electrically--would be a significant inconsistency.

A restoration to 1939 offers the most significant interpretive opportunities, best serves the structures, and satisfies management needs. Rebuilding the passageway between the Quarters and the Tower--the most significant difference between Alternatives 3 (1939) and 4 (1973)--would not only restore a possibly unique feature of the Fire Island Light Station, it would also emphasize the restoration of the integrity of the complex and it would provide a safe and convenient way of controlling visitation into the tower. Opening the blocked windows and doors in the Quarters would facilitate the adaptive preservation of the building as a visitor center and museum, and it would restore the esthetic integrity of the building. In addition, the relit light would be a constant reminder of the first use of electricity for the Fire Island beacon.

Interpretively, a restoration to 1939 would allow a story to be told at Fire Island that is not told elsewhere, and it would allow the interpretation of the whole Lighthouse Tract, including the Annex complex, to be unified. The Lighthouse has always symbolized the hostile environment of the ocean, but with the approach of World War II, the dangers expand from simply the problems of navigation on the South Shore of Long Island, where there were no safe harbors, to the threat of invasion from overseas. In becoming part of the Coast Guard, the Lighthouse became part of the systematic surveillance of the ocean, joining the Life-Saving Service (one of the main focuses of the museum in the Keeper's Quarters) as part of an integrated system of coastal

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occurred instead about 1950 because repair of leaks was too expensive--one of a series of actions and failures to act that reflected the Coast Guard's apparently shifting perspectives on the light. The 1939 alternative will accomplish the same structural treatments as the 1958 would have--that is, the passageway will be reconstructed, and the blocked windows and doors will be restored--while at the same time providing greater historical integrity.

and harbor defense. Along with the Annex complex--especially the radio transmitters added during World War II and the 1930's watch tower--the Fire Island Light Station, restored to this period, becomes part of the physical evidence of the revolution in America's role in world affairs.

Therefore, Alternative 3, a restoration to 1939, is recommended as the treatment of choice for the Fire Island Light Station.

Recommended by ______________________
Superintendent

Approved by ______________________
Regional Director

APPENDIX D.

Miscellaneous Historical Documents Relating to Lighthouses

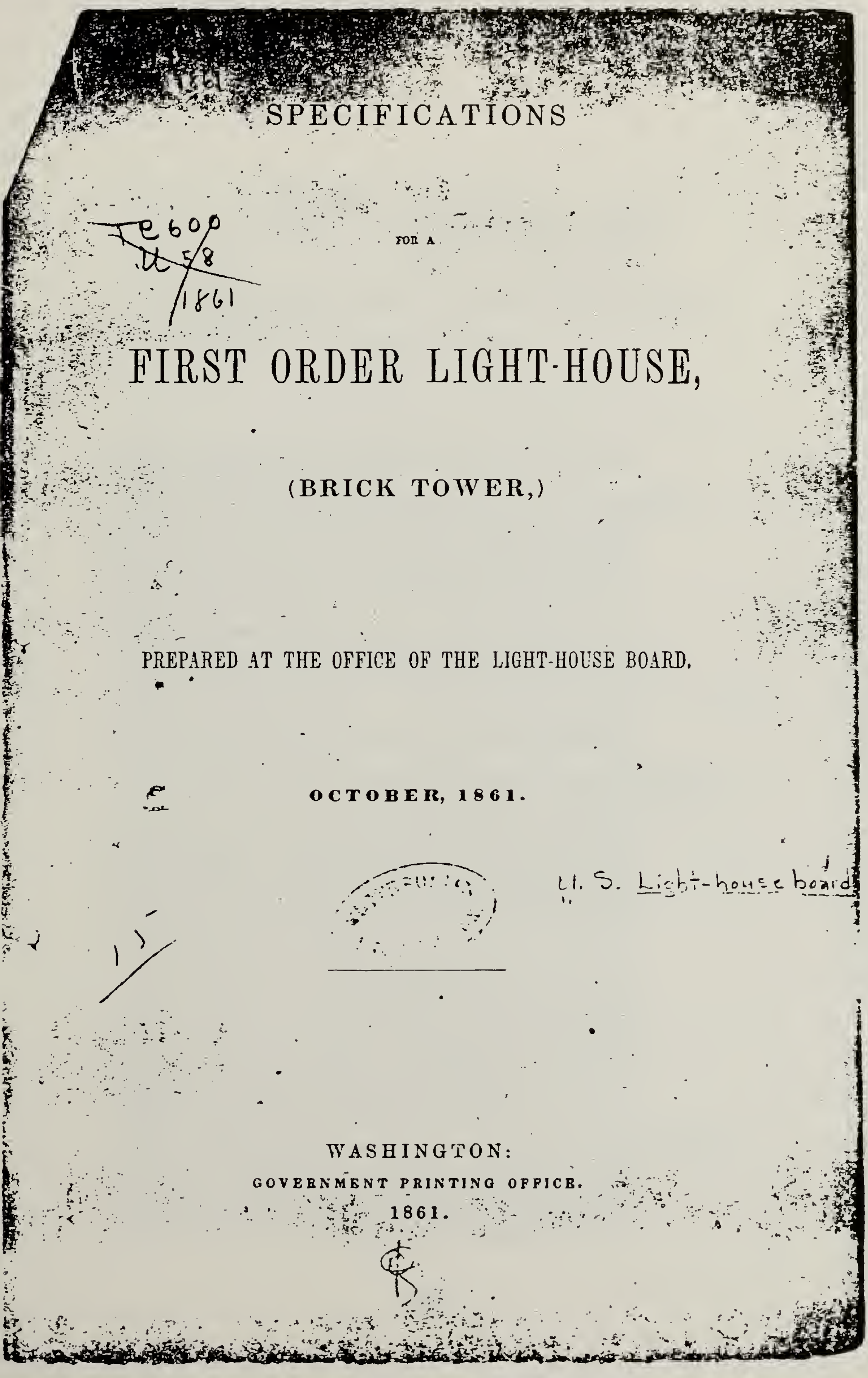
List of Historical Documents

D1. 1861. Specifications for a First-Order Light House, (Brick Tower). Prepared at the Office of the Light-House Board. October 1861. Published by the Government Printing Office, Washington. 11 pages.

D2. March 1874. "The Light-Houses of the United States," by Charles Nordhoff. Published in *Harper's New Monthly Magazine*, No. CCLXXXVI, March 1874, Vol. XLVIII. 13 pages.

D3. December 28, 1886. Letter from Major of Engineers to 3rd/District Engineer. Describing system of lightning conductors to be adopted in lighthouses. 1 page.

APPENDIX D1.



SPECIFICATIONS

FOR A

~~Fe600~~
~~.U58~~
1861

FIRST ORDER LIGHT-HOUSE,

(BRICK TOWER,)

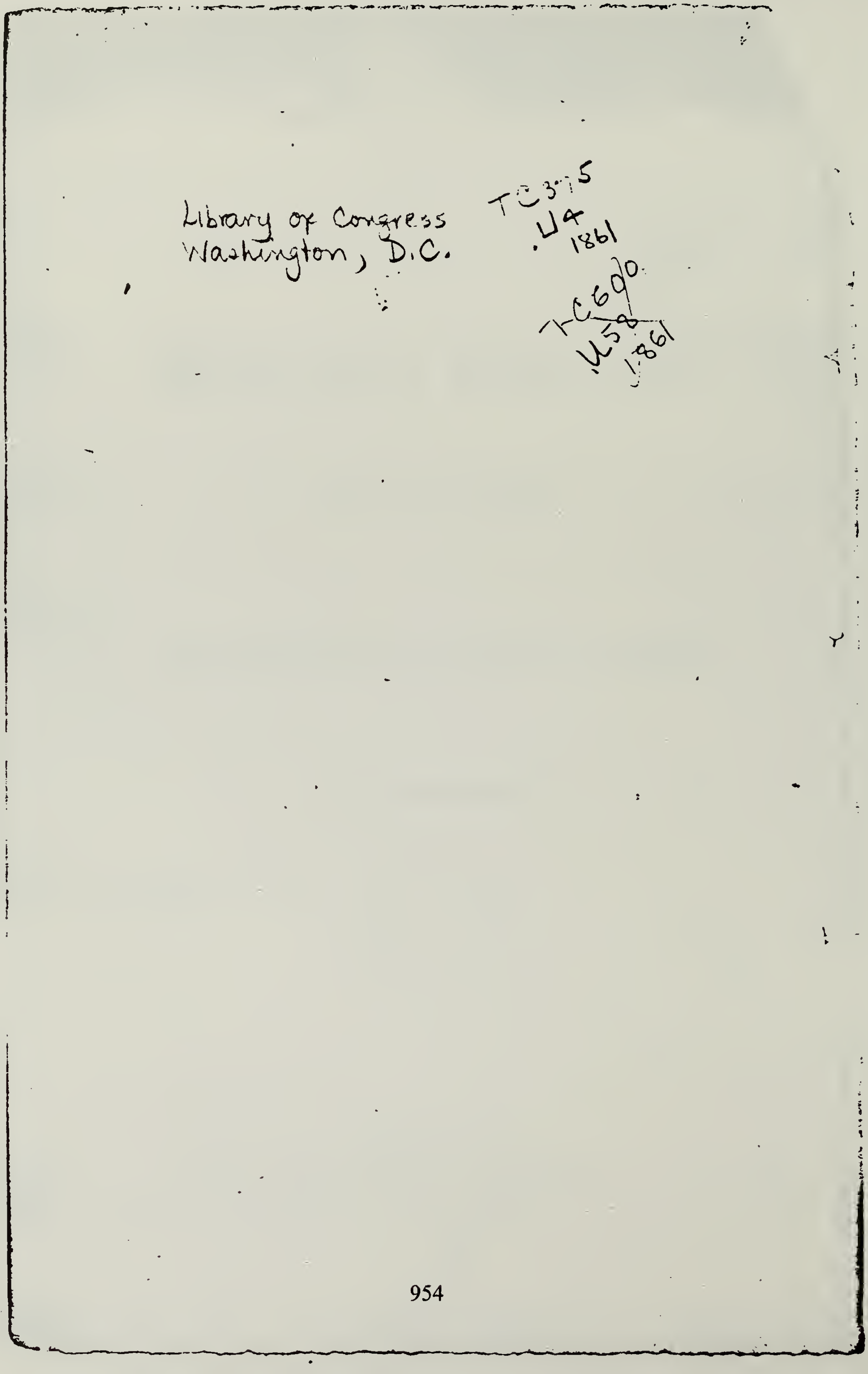
PREPARED AT THE OFFICE OF THE LIGHT-HOUSE BOARD.

OCTOBER, 1861.

U. S. Light-house board

15

WASHINGTON:
GOVERNMENT PRINTING OFFICE.
1861.



Library of Congress
Washington, D.C.

TC375
.U4
1861

TC600
.U58
1861

SPECIFICATIONS

FOR A

FIRST ORDER LIGHT-HOUSE,

(BRICK TOWER.)

Drawings. The dimensions, general arrangements, and details to be as shown on plates 85, 85 I, 85 II, 85 III, and 85 IV, of the U. S. Light-house Portfolio.

General description. The shape of the tower is a frustrum of a cone. There are two shells of brickwork, the inner one being cylindrical, and connected to the outer one with six radial walls. The inner and outer walls will decrease in thickness as they approach the top, by offsets at intervals, as shown on the drawing.

The tower is surmounted with a stone cornice, and a lantern for a first order Fresnel lens.

Attached to the tower is a small brick structure containing work and oil rooms.

The main spiral stairway, extending from the lower part of tower to the watch-room, is of iron, and built in the brickwork of cylinder.

Principal dimensions. From the level of ground to the focal plane of lantern the height is one hundred and fifty (150) feet. The outside diameter of the frustrum, just above the plinth, is twenty-eight (28) feet, and immediately under the cornice, fifteen (15) feet. The difference between the radii of the upper and lower parts of frustrum being seventy-eight (78) inches, and the height of the frustrum being 126.81 feet, the bâtir, or inclination per foot of vertical height, is consequently $\frac{78}{126.81} = .615''$

The thickness of the outer shell, at the base, is 3′ 9″, and at the top, 1′ 10½″. The inner shell has an internal diameter of ten feet six inches (10′ 6″); thickness at the base 18″, decreasing to 9″ near the upper part, where it merges into the outer shell. The radial walls are uniformly the length of two bricks in thickness.

The walls of oil and work rooms to be built hollow, as shown on plate 85 IV.

Excavation. If the ground on which the tower is to be built is good and solid, the foundation pit must be excavated to the depth of ten (10) feet, and suitably levelled for the bed of concrete, which must be from two to three feet in thickness. But if, in the judgment of the Superintendent, the ground be not sufficiently firm to build directly upon, then it must be closely piled, and covered with a grillage of heavy timbers, say 12″ × 12″. The upper side of grillage to come within eight feet of the surface of ground.

All excavated material to be graded around the premises, as may be directed. When the foundation is completed, the earth must be well rammed about it.

Foundation. The foundation to be of good rubble masonry, in random courses, with level beds. The extreme diameter of the lowest course to be forty (40) feet. The largest stones obtainable must be used for this course.

Plinth. The two courses forming the plinth of tower to have square beds and builds; the faces to have chisel draughts 1½″ wide all around; the intermediate surface to be dressed off roughly with a pick.

Concrete, or Béton. When concrete is used in the foundation, it must be made as follows: one barrel of cement, two barrels of clean, sharp, fresh water sand, and one cubic yard of stone, will make a batch of concrete. The stone must be hard and sound, and broken to pass through a 2½″ ring. The materials must all be measured. The broken stone having been spread on a bed of plank, the mortar must be spread evenly over it, and the whole mass turned over and thoroughly mixed with a hoe or shovel. When deposited in the foundation pit it must be carefully rammed.

Mortar. The mortar for the foundation and all other parts of tower must be made with hydraulic cement, of the best quality, freshly burned, perfectly ground, securely put up, and kept dry until used. The sand to be clean, free from salt, and sharp gritted. The mortar to be mixed as it is used. The time from the first wetting of the cement until used in masonry must not exceed one half hour.

Brickwork. The brick used throughout must be of the best quality, firm in texture, hard burned, and laid in the most solid manner, with full beds of mortar. The dimensions of all the walls are fully shown on the drawings.

Lead flashings to be inserted where necessary.

In the lower part of inside shell there must be left six holes for ventilating the compartments between the radial walls. Each hole to be 4″ square. At the upper part of the outer shell copper ventilators will be inserted, as hereafter described.

The following must be built in the brickwork during the erection: the landing-plates, girders, watch-room and lantern decks; the steps of stairways, window frames, lintels and sills.

Solid cornice. The cornice of tower to be of stone, of the form and dimensions shown on plate 85 III. The upper surface to be patent hammered. All other surfaces, including beds and builds, to be rough hammered.

Cornice may be built with brackets.

Provided the general dimensions (as diameter, height, &c.) are retained, the cornice may be built with stone brackets, as in the second order light-house. There must not be less than twelve (12) brackets, with a thickness of not less than ten (10) inches each. Whichever cornice is decided upon, the stonework must be thoroughly tied together with wrought-iron cramps and anchors.

Parapet.

The parapet for the lantern will be a hollow brick wall. External diameter 13′ 6″; thickness 18″.

The iron door and frame shown on plate 20 VII, together with the lantern ventilators, must be built in the brickwork.

Lantern furnished complete.

The lantern will be furnished, complete, at ————. The contractor must erect it in an accurate and substantial manner.

Work and oil rooms.

The foundation for the work and oil rooms to be of rubble masonry 18″ thick, and extending 3 feet below the surface of ground, and 3 feet above it. The stone may be in irregular courses, but must have square beds and builds.

The outer walls will be hollow, and 14″ thick. The partition walls will be the length of a brick in thickness.

Chimney.

The chimney flue will be 12″ × 12″, properly pargetted on the inside, and capped with an Emerson ventilator made of galvanized iron.

Earthen thimbles.

There must be inserted in the flue two earthenware thimbles 5½″ diameter, one in the first and one in the second story, each 30″ below the ceiling.

A small fireplace must be constructed on the first floor.

Paving of oil rooms and passages.

The oil rooms will be paved with hard brick, laid on edge.

The passages to, and floor of tower must be paved with encaustic tiles, blue and buff, solidly laid in cement.

Stone shelves for oil butts.

Fine hammered stone shelves, built on brick piers, must be provided for the oil butts. Shelves to be not less than 4″ thick by 24″ wide. The upper side to be 18″ above the floor.

METAL WORK.

Main stairway.

The steps for main stairway to be of cast iron, of the form and dimensions shown on plate 85 I. The total number actually required for the stairway is 181. There must be furnished, in addition to this number, six (6) extra steps.

Surfaces of contact faced.

The upper and lower surfaces of the hubs forming the central column of stairway must be turned, and the height of the steps must be made to an uniform gauge of eight (8) inches, U. S. standard measure.

Each flight of steps to be temporarily erected and fitted together at the workshop; and each step must be marked or numbered with a chisel, according to its position.

Stairway railing. The wrought-iron railing for the stairway must be made in portions convenient for shipment, having suitable scarfs in the rail. The standards will be turned at the lower part, and neatly fitted to the steps. The rail must be of round iron, one (1) inch diameter, in place of the arrangement shown on the drawing. At the commencement and termination of each flight, the rail must be neatly turned down in the form of a scroll.

The arrangement of main stairway is shown on plate 85. Each step has a rise of 8″ and is placed $\frac{1}{24}$ of a circle in advance of its neighbor. The dotted semi-circles on the vertical section represent the relative positions of the landings.

Landings. Each landing is formed of two cast-iron plates one inch thick, partly bedded in the brick work and partly resting on a cast-iron girder, whose ends are also secured in the brickwork of cylinder.

Stirling's toughened iron. All the girders in the light-house must be made of Stirling's toughened iron—that is, of cast iron, with an admixture of about 20 per cent. of wrought iron turnings or scraps.

Base plate of stairway. The base plate of stairway to be of cast iron of the size shown on the drawing. It must be turned to fit the hub of lower step.

The watch-room deck to be of cast iron one inch thick, arranged as shown on plate 85 III.

Head of main stairway. The arrangement for covering in the head of main stairway, and preventing injurious draughts reaching the lantern, is shown on plate 85 III.

Plate-iron work. It consists of a casing formed of plate iron one-eighth ($\frac{1}{8}$) of an inch thick; a door of like material, and a covering of steps and risers of cast iron; which latter lead to the lantern.

The casing must be secured to the flange on the watch-room deck with rivets $\frac{3}{8}$″ diameter, not exceeding 3″ apart from centre to centre, sperical headed and driven hot. The joints of the casing to be flush, and covered with battens 3″×$\frac{1}{8}$″, secured as above. The door and door frame will be stiffened with bar iron of the sizes shown on the drawing, extending all around the door and around the top and sides forming the frame, secured with rivets not over 3″ apart.

The door must be hung with two pairs of brass butt hinges of 4″×4″, secured with screws $\frac{3}{8}$″ diameter. A brass lock of suitable size must be fitted to the door.

Watchroom stairway. Each cast-iron riser must be secured to the casing with four wrought-iron bolts $\frac{1}{2}$″ diameter. Bolts to be tool finished. The cast-iron treads to be checked or roughened on the upper side to the depth of $\frac{3}{32}''$ to prevent the feet from slipping.

The back of the tread enters a groove formed in the riser next above it, while the front underside of tread forms a groove for the reception of the riser next below it. The stairway railing to be of wrought iron, of the sizes shown.

The standards to be tool finished, and secured to the steps with hexagonal nuts.

Lantern deck.

The lantern-deck consists of a cast-iron plate one inch thick, made in three parts, an opening being formed in it for the watch-room stairway.

The part opposite the hatchway to be a quadrant; the remainder of plate to be in two equal segments.

The periphery of plate is bedded in the brickwork of parapet; the inner part rests on a girder, which is also bedded in the wall at both ends. The stone seats for the girder ends must be fine hammered, and a sheet of lead $\frac{1}{8}''$ thick to be laid thereon.

Girder.

The girder is provided in the centre with an opening for the socket of lens pedestal. The section beyond the centre is that known as "Hodgkinson's," the lower flange being much in excess of the upper in area.

This, as well as the girders for the landings, must be made of Stirling's toughened-cast iron, described above.

Socket for lens pedestal.

The socket for lens pedestal to be of cast iron. The upper flange to be $1\frac{1}{4}''$ thick, and to have in addition eight (8) radial chipping pieces 1" wide by $\frac{1}{4}''$ deep (on the underside.) The upper and under sides to be faced. The tube projecting downwards into the girder to be bored to the sizes marked. The socket and deck will be bolted together with eight (8) wrought-iron bolts 1" diameter, heads and nuts six sided and finished.

Railing around parapet.

The railing around the parapet to be of wrought iron. The standards to be $1\frac{1}{2}'' \times 1\frac{1}{2}''$; the lower part is bent inward 12", and then downward 9", and secured in the stonework of cornice with melted brimstone, the upper surface being flush with the surface of stone.

The bottom rail, which is $\frac{3}{4}'' \times 1\frac{1}{2}''$, is turned up at the ends, and is secured to the standards with wrought-iron bolts $\frac{5}{8}''$ diameter. Bolts to be tool finished.

The upper rail, which is $\frac{3}{4}'' \times 2''$, has scarf joints at the ends of the segments, the standards pass through these, and both are secured together with brass ball nuts. The vertical rods are formed of $\frac{5}{8}''$ round iron, rivetted to the rails at both ends.

Parapet door.

The doorway in parapet is shown on plate 20 VII. The outer folding doors are of cast iron, the inner doors of wood. The jambs, cap and sill are of cast iron. The rebates for the doors, and the upper and lower flanges of the jambs must be planed. Those parts of the cap and sill which form surfaces of contact with the jambs must be planed. The cap and sill will each be secured to the jambs with four wrought-iron bolts $\frac{3}{4}''$ diameter.

Hinges.

The door frame thus formed will be built in the wall of parapet. The top, bottom, and sides of the outer doors must be planed, and will be secured to the jambs with strong composition hinges $3\frac{1}{2}''$ by $3\frac{1}{2}''$, fastened with gun-metal screws $\frac{3}{8}''$ diameter. In addition to the wrought-iron catch at the bottom of the door, (as shown on the drawing,) there must be provided two strong composition bolts (9 of copper to 1 of tin) at the upper part on the inside; also a composition hook and eye must be fitted to each fold, or to the jambs, to keep the doors open when desired.

Inner wooden doors.

The inner doors will be $1\frac{1}{2}''$ thick, made of the best sash stuff, hung with strong composition hinges, and provided with a composition lock; also two bolts, and hooks and eyes (all of composition) for retaining the doors open. The lock to have mineral knobs. The joints of the doors to be well plied with white lead. The doors to be grained in imitation of oak, and varnished.

Lantern.

For particulars of lantern, and the steps leading to lantern gallery, see specifications for a first order lantern.

The metal windows of tower are shown on plate 85 II. The lintels and window stools are to be of cast iron, of constant width and thickness, but in varying lengths, to suit the thickness of tower at different heights. The plans of these are shown on plate 85 I, where the number of ribs required in each case is noted. The projections on the lintels and stools enter corresponding recesses in the window frames, and thus retain them in position. The window frames are to be of cast iron, made quite fair and true. The rebates for the sash must be planed, or chipped, or filed, as may be convenient.

Gun-metal sashes.

The window sashes to be of gun-metal (9 of copper to 1 of tin). The sides and front next the frame must be planed. The glass will be retained in place with strips of sheet brass one-sixteenth ($\frac{1}{16}$) of an inch thick, secured with brass screws $\frac{3}{16}''$ diameter, 24 for each sash of two lights.

In addition to the catch at the bottom of each window, (which must be of gun-metal instead of wrought iron, as marked on the drawing,) there must be fitted at the top of each window a plate spring bolt of brass.

The hinges of windows to be neatly fitted; the pins to be of gun-metal $\frac{1}{4}''$ diameter. Sash knobs to be of brass, (instead of wrought iron, as marked on the drawing).

Spring catches, for retaining the outer sashes open, to be of steel, suitably tempered, and secured to the window stool with two brass screws $\frac{8}{16}$" diameter.

The inner sashes to be retained open with brass hooks and eyes.

Stone sills.

The window sills to be either blue stone, limestone, or granite, as may be most readily obtained.

Lintels over the passages 1st & 2d floors.

The cast-iron lintels, for covering the passages in tower, to be $\frac{3}{4}$" thick, with deep ribs on the upper side 1" thick at the root, and $\frac{7}{8}$" at the top. Each lintel will be made in seven pieces, as indicated on plates 85 and 85 I. Both ends will have a bearing of six inches on the brickwork.

Ventilators for cells of tower.

There will be required six (6) ventilators at the upper part of tower, to be inserted in the outer shell, 13 feet below the watch-room deck; one to be in each of the compartments formed by the radial walls. They are to be of sheet copper $\frac{1}{16}$" thick. The form will be a plain cylinder, five (5) inches outside diameter, by 2 feet in length. The outer end will project 3" beyond the brickwork, and is to be furnished with a conical cowl, base 10" diameter. height 5". The base to be in the same plane with the end of the tube, to which it is to be secured with four strips of copper $\frac{3}{4}$" wide rivetted to cone and tube. This arrangement is designed to exclude the driving rains.

The tubes will be built in the brickwork, with the outer ends 2" lower than the inner ends.

Doors in the passages.

The door frames in the passages to be of yellow pine, 3" × 5", built in the brickwork. Rebates for the doors, $\frac{5}{8}$" × $1\frac{3}{4}$". Each door to be made in two folds, of the best sash stuff; thickness of stiles and rails $1\frac{3}{4}$"; ditto of panels $\frac{3}{4}$". There are to be three panels to each fold: the upper panel to be glazed with a 9" × 12" light. All the joints to be well plied with white lead. Each fold must be hung with two pairs of $3\frac{1}{2}$" × $3\frac{1}{2}$" brass butt hinges. The locks and bolts for the doors must be of brass, strongly made. Locks to have mineral knobs. Provide brass hooks and eyes for retaining the doors open.

Windows of the workroom, &c.

The windows in the work and oil rooms are to have double sets of sashes, made of clear stuff, suitably hung with cast-iron weights, brass axle pullies, and copper wire sash cords.

Provide stone sills, and cast-iron lintels, of the sizes shown on the drawings. The glass for the windows must be of extra thickness, well bedded, and back puttied.

Main entrance door.

The entrance door is shown on plate 85 IV. The lintel, cornice, consoles, sill and steps to be of stone; faces to be fine hammered; beds and builds to be dressed off fair, having square joints.

The door, frame and dressings to be of clear stuff, well fitted; joints to be plied with white lead. There will be a head light over the door; glass to be not less than $\frac{1}{16}$"

thick. Sash must be well secured to the door frame. Each fold of the door to be hung with two pairs brass butt hinges 4″ × 4″, secured with 1¾″ brass screws. Brass plate bolts must be fitted at the upper and lower parts of door. Provide a six-inch mortise rebate lock, with porcelain knobs.

2d floor. The joists for the 2d floor (workroom floor) to be of spruce pine 3″ × 12″. The flooring boards to be of yellow heart pine, one inch thick, not over four inches wide, tongued, grooved, dressed, and well nailed to the joists. The washboard around the 1st and 2d floors to be 6 inches high, and beaded.

Roof. The ceiling joists and wall plates of workroom to be of spruce pine 3″ × 10″. The joists to extend to the outer edge of brickwork.

3″ × 4″ scantling will be notched in the joists, near the ends of the latter, for attaching the rafters of roof, as shown on plate 85 IV. The rafters and ridge pole to be of spruce pine; the former 3″ × 5″, the latter 3″ × 12″.

The finish of cornice to be as shown on the drawings. Brackets to be 4″ thick, and well secured.

Slating. The rafters to be sheathed with one inch boards, and covered with the best quality of ladies slate, securely fixed with zinc nails, two to each slate. The ridge to be covered with ridge tiles. The underside of the slating to be well pointed with lime and hair mortar.

Flashings. At the juncture of roof and tower, lead flashings must be inserted in the brickwork. Use milled lead, weighing not less than six lbs. per square foot.

Plastering. All the walls and ceilings in the work and oil rooms, and the passages in the tower, to receive two coats of brown mortar, containing a suitable amount of hair, and one coat of white hard finish.

Painting. All the iron work of structure must be painted with two coats of white lead in oil. at the workshop; and when fixed in the tower, to receive two additional coats of green paint and one coat of varnish.

All the woodwork of structure to have three coats of white zinc paint. The doors must be grained in imitation of oak, and have two coats of varnish. The interior brickwork of tower must be painted with three coats of white lead in oil, well laid on.

MISCELLANEOUS ITEMS.

Oil room doors. A four-paneled door 1½″ thick, must be fitted at the entrance of each oil room. Frame to be the depth of 9″ wall, and to have mouldings on each side not less than 4½″ wide. The hinges and locks to be of brass. The above doors and frames are not shown on the drawings.

Lightning rod.

A lightning rod, not less than $\frac{3}{4}''$ diameter, made of copper wire rope, must be provided. It must be fastened to the tower with copper fastenings, and is to extend from the foot of the lantern pinnacle to some point of the ground, not less than 40 feet from the centre of tower; then to descend vertically 10 feet, or further if the ground is too dry at that depth. A barrel of powdered charcoal must be rammed around the lower end of rod.

Iron castings.

All iron castings must be made from remelted iron. All castings which are honeycombed, or otherwise imperfect, *will be rejected.*

All parts of the iron work that have been planed, turned or finished, must be well smeared with a mixture of white lead and tallow, to prevent rusting.

Finally, the structure to be completed in a faithful and workmanlike manner, whether herein particularly specified or not.

All the materials used to be of the best quality of their several kinds.

TREASURY DEPARTMENT,
Light-house Board,
Washington city.

HARPER'S
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THE LIGHT-HOUSES OF THE UNITED STATES.

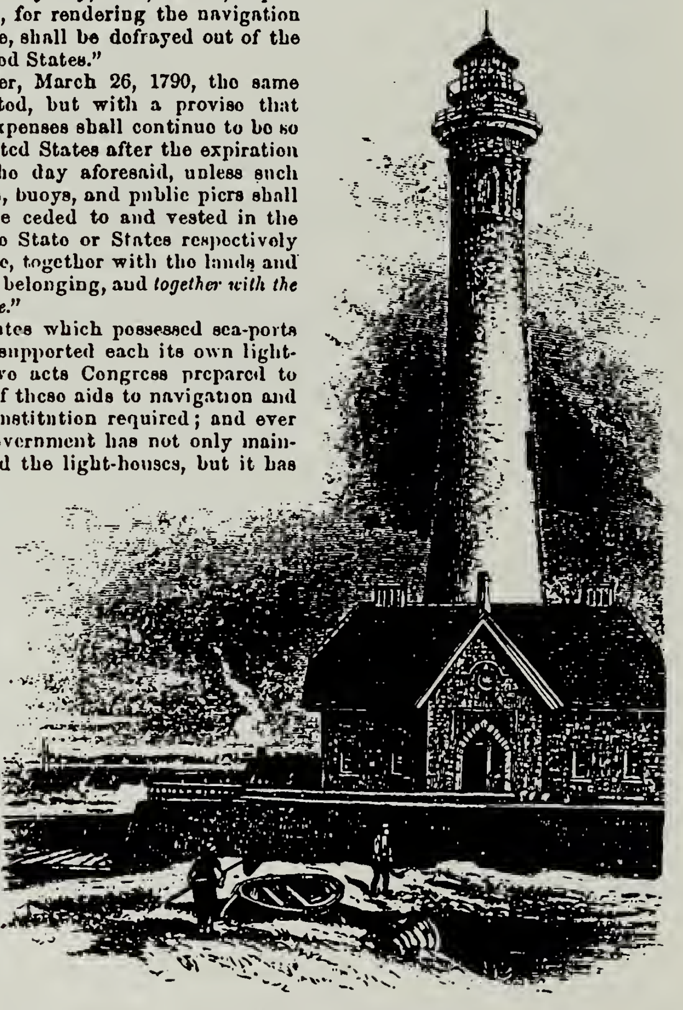
By CHARLES NORDHOFF.

THE first act of Congress relating to light-houses was passed August 7, 1789. It provided that "all expenses which shall accrue from and after the 15th day of August, 1789, in the necessary support, maintenance, and repairs of all light-houses, beacons, buoys, and public piers, erected, placed, or sunk before the passing of this act, at the entrance of or within any bay, inlet, harbor, or port of the United States, for rendering the navigation thereof easy and safe, shall be defrayed out of the Treasury of the United States."

Seven months later, March 26, 1790, the same words were re-enacted, but with a proviso that "none of the said expenses shall continue to be so defrayed by the United States after the expiration of one year from the day aforesaid, unless such light-houses, beacons, buoys, and public piers shall in the mean time be ceded to and vested in the United States by the State or States respectively in which the same lie, together with the lands and tenements thereunto belonging, and *together with the jurisdiction of the same.*"

Before this the States which possessed sea-ports had controlled and supported each its own light-houses; by these two acts Congress prepared to assume the control of these aids to navigation and commerce, as the Constitution required; and ever since the Federal government has not only maintained and supported the light-houses, but it has also owned them, and a sufficient space of ground about them for all necessary ends. And thus it was that in the first proclamation of Mr. Lincoln, in 1861, he announced his purpose to recover and maintain possession of all forts, *light-houses*, etc.

The Federal government has not in any case erected a light-house until the State government had first ceded both the land on which it was to stand and the jurisdiction over it.



FIRE ISLAND LIGHT, NEW YORK.

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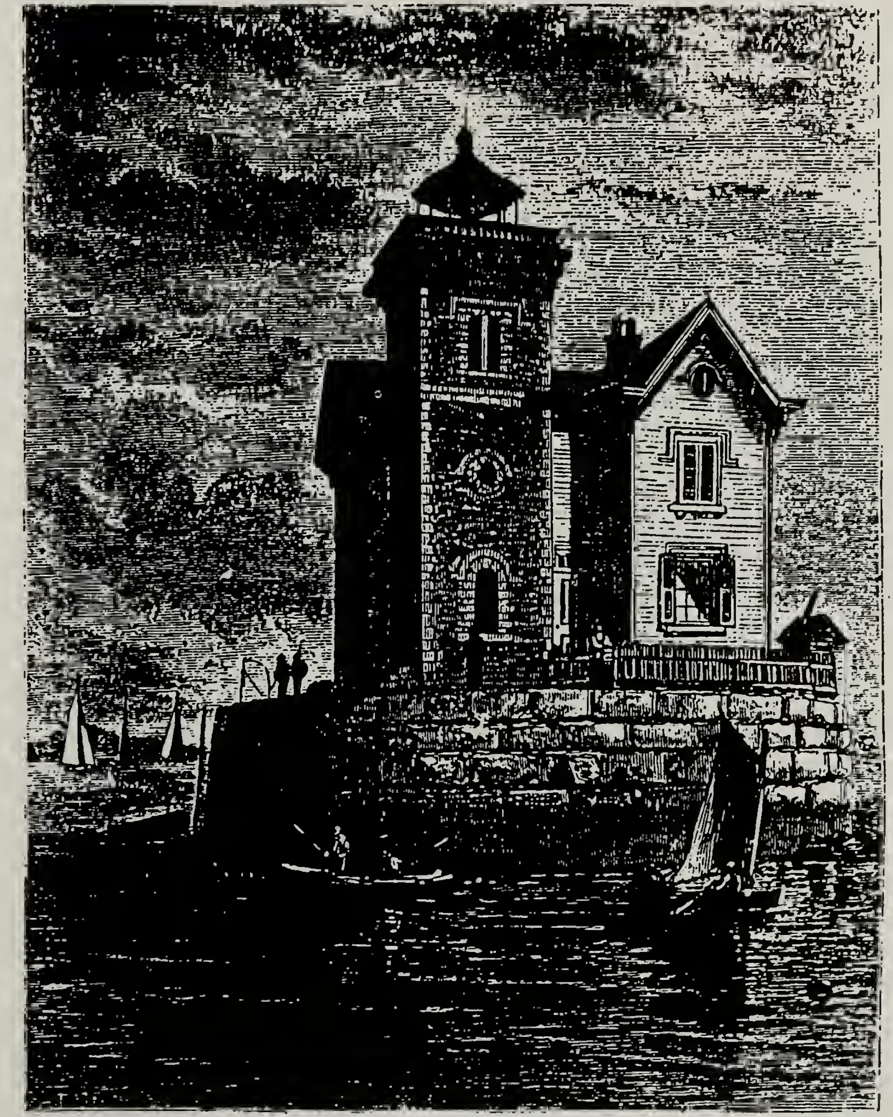


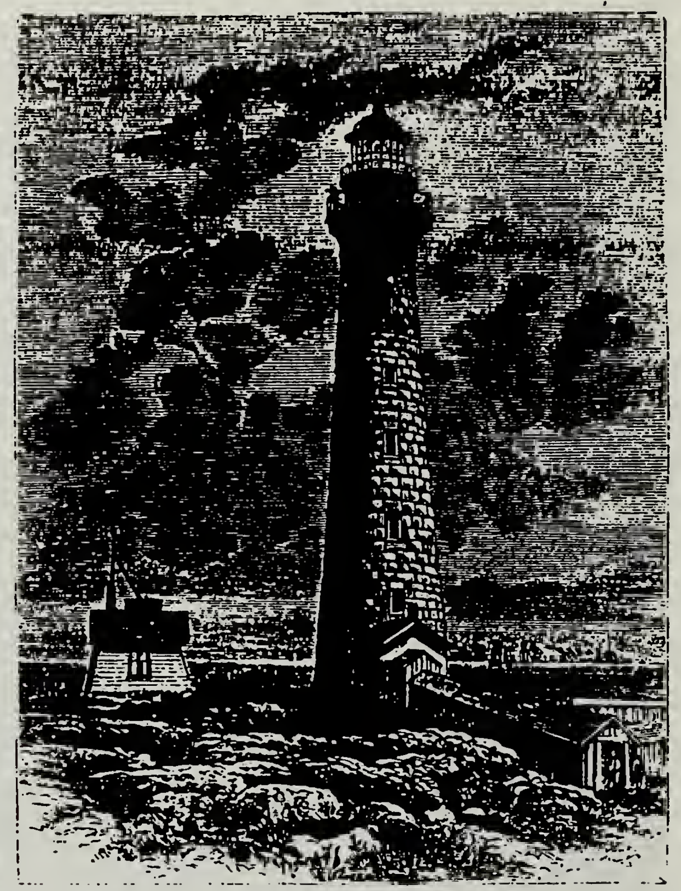
BERGEN POINT LIGHT-HOUSE, NEW JERSEY.

In March, 1815, twenty-six years after the first act quoted above, the government maintained eighty four light-houses. In September, 1872, it maintained 573 light-houses and twenty-two light-ships, besides thirty-three fog-signals worked by steam or hot-air engines, 354 beacons, and 2762 buoys. There are now 809 light-keepers.

In 1815 light-houses were placed on the coasts of only eleven States; and Massachusetts had twenty lights, New York and Connecticut five each, Virginia and North Carolina four, and so on.

The first light-house was ceded to the Federal government by the State of Virginia, November 13, 1789. The cession included "two acres in the county of Princess Ann, the headland of Cape Henry," with a "reservation of fishing rights, and the hauling of seines." The next act of cession was in May, 1790, by Connecticut, of the "light-house at New London, and certain rocks and ledges off against the harbor of New London, called Race Rock, Black Ledge, and Goshen Reef, together with the buoys."

In June of the same year Massachusetts made a wholesale cession of eight pieces of real estate, with the light-houses on them



THATCHER'S ISLAND (CAPE ANN, MASSACHUSETTS), LIGHT AND FOG SIGNALS.

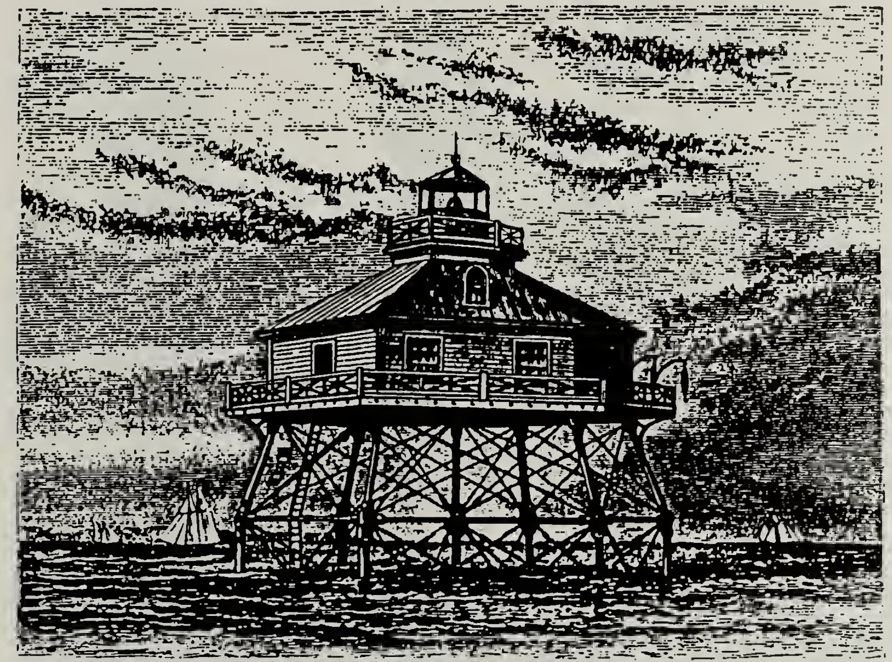
or to be put on them; in November, 1790, New Jersey gave to the Federal government "a lot of about four acres at the point of Sandy Hook," in Monmouth County; and in 1792 New York ceded "Montauk Point, called Turtle Hill, in Suffolk County."

The history of our light-houses is really contained to a large extent in the laws of Congress relating to them. Thus in 1819 Congress appropriated $3027, in addition to other sums previously given, to make up the salaries of light-keepers to $350 per annum. In 1822 $8240 were appropriated to buy a patent light of David Melville, and place it in the light-houses. In 1825 it was enacted that "if any person or persons shall hold out or show any false light or lights, or extinguish any true light, with the intention to bring any ship or vessel, boat or raft, being or sailing upon the sea, into danger or distress or shipwreck, every such person so offending, his or her counselors, aiders, and abettors, shall be deemed guilty of felony, and shall, on conviction thereof, be punished by a fine not exceeding four thousand dollars, and imprisonment and confinement to hard labor not exceeding ten years, according to the aggravation of the offense."

It is said that evil-minded persons on the Bahamas and elsewhere used systematically to hang out false lights to lure ships off their course and on to reefs, and that their rude method for imitating a revolving or flash light was to tie a lantern to a horse's tail and walk the animal around in a circle.

Until 1852 the light-houses were under the superintendence of the Fifth Auditor of the Treasury, who had other matters to attend to, was not himself chosen as an expert in light-house construction or maintenance, and had no authority to employ skilled assistants. There had been such constant and urgent complaints of the deficiencies of our light-house system that a commission of proper persons was at last sent to Europe to inquire into the management of light-houses there, and in consequence of their report the present Light-house Board was constituted by act of Congress in August, 1852. This act authorized and required the President to appoint immediately two officers of the navy of high rank, one officer of the Engineer Corps, one of the Topographical Engineers, and two civilians of high scientific attainments; also an officer of the navy and one of the engineers to be secretaries. These together were constituted the Light-house Board, and to it was given charge of the erection, repair, and maintenance of all light-houses, light-ships, beacons, and buoys, with full powers. The Secretary of the Treasury was made ex officio president of the board.

The labors of this Light-house Board have placed our light service, which was once the worst in the world, at the head of all for the excellence of its different devices for relieving navigation of risks, and making our harbors easily accessible. All the most ap-



LIGHT-HOUSE AT THIMBLE SHOALS, VIRGINIA.

proved modern improvements in lenses, reflectors, and lamps have been introduced; the many difficulties in building light-houses which are found on our long and varied coast-line have been overcome with engineering skill and ingenuity highly creditable to our officers; and Congress, dealing liberally with this branch of the service, has enabled the board to perfect their work in all respects.

The Light-house Board is at present composed of the Secretary of the Treasury as ex officio President; Professor Joseph Henry, LL.D., Secretary of the Smithsonian Institution, Chairman; Brevet Major-General A. A. Humphreys, Chief of Engineers, U.S.A.; Brevet Major-General J. G. Barnard, Colonel of Engineers, U.S.A.; Professor Benjamin Peirce, LL.D., Superintendent of the United States Coast Survey; Captain John Lee Davis, U.S.N.; and Commodore Foxhall A. Parker, U.S.N.; with Rear-Admiral C. S. Boggs as Naval Secretary, and Major George H. Elliot, of the Engineers, as Engineer Secretary. The two secretaries are members of the board, and vote as such in its deliberations. They and Professor Henry are the able and capable members of the board on duty in the office at Washington. Admiral Shubrick was the first chairman of the board.

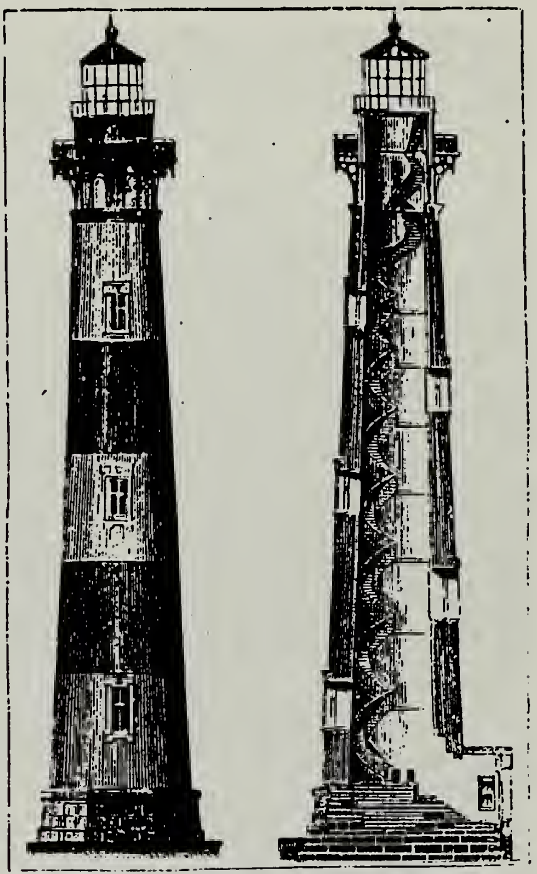
Besides the Congressional enactments punishing the destruction or disturbance of light-houses and buoys, many of the States impose penalties, either fine or imprisonment, or both, for such offenses.

There are thirteen light-house districts, beginning in Maine, and ending on the Pacific coast, and competent officers are detailed in each district to superintend new structures and repairs, and to see that supplies are constantly sent as needed.

A light-house keeper is required by the government to be over eighteen years old, to be able to read and write, and to be competent for his duties. "Women and servants must not be employed in the management of the lights, except by the special authority of the department."

There are six orders of lights in our service, the first being established to give warning of the approach to land, and the others being subsidiary, to mark headlands and points in bays, rivers, and lakes. There are white and red lights; fixed, revolving, and flash lights; and the revolving lights have different intervals, from a minute and a half to ten seconds. There are also fixed white lights showing a red flash at intervals; and in some cases two and even three fixed white lights mark a headland. Thus, on Cape Cod, Chatham has two lights, and Nauset three in a row. These differences are made to enable mariners the more readily and surely to distinguish lights apart, and thus to be certain what point or headland they are approaching at night. For the same reasons light-ships are numbered, and have their numbers painted on their sides. Buoys, too, are set in regular order for the better guidance of seamen. Thus, on entering a bay or harbor, the ship leaves red buoys, with even numbers, on her starboard, and black buoys, with odd numbers, on her port side. Where a buoy marks an obstruction in mid-channel which may be passed on either side, it is painted with horizontal red and black stripes; but if the buoy is striped white and black perpendicularly, this denotes that you must pass close to it to avoid danger. Perches with balls and cages on buoys denote that they are placed at turning-points in the channel. Thus it will be seen that, by various ingenious expedients, as little as possible is left to chance or guess-work; and the seaman who has his chart before him, and understands these simple regulations, can find his way into any of our ports.

All lights on the St. Lawrence, and on all our Northern lakes and their bays, are discontinued on the 1st of January, and relit only when the ice melts and navigation reopens.

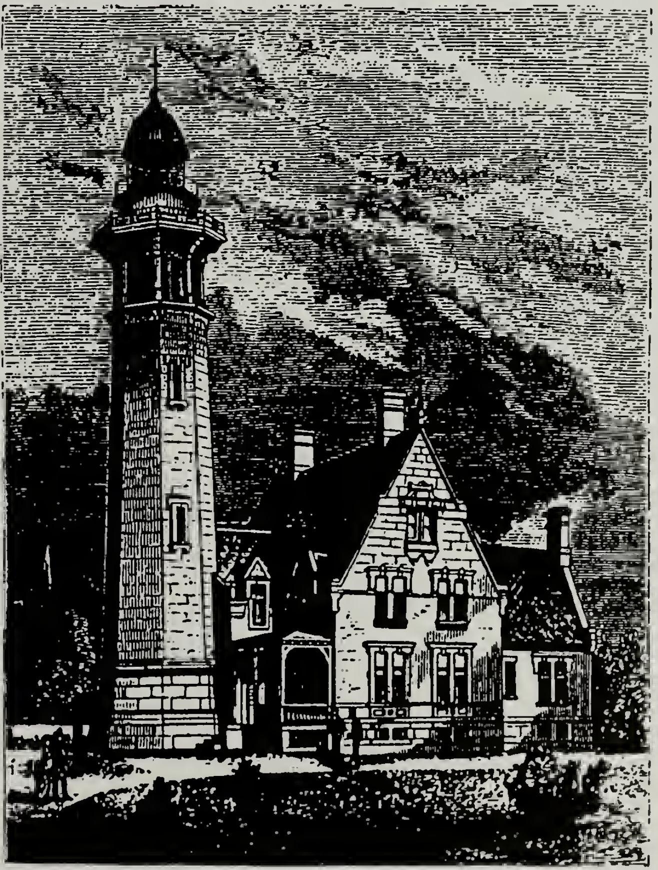


LIGHT-HOUSE, BODY'S ISLAND, NORTH CAROLINA.

The building of a light-house often demands the utmost skill, ingenuity, and knowledge of the engineer; and the illustrations in this article show how varying is the problem presented. Some are built of stones fastened together with heavy iron clamps; some, entirely of iron, look like a gigantic spider squatting on the water. Some, placed on low beaches or rocks, need to be tall towers. Others, like Point Reyes, in California, perched on high bluffs and cliffs, are only big enough to contain the lantern and its apparatus. In many cases light-houses are built complete at some foundry, and then transported to their proper place. In others men must work amidst the surf under such difficulties that in laying the foundations of Minot's Ledge Light-house, on the Massachusetts coast, one of the famous achievements in this branch of engineering, General Alexander, the distinguished officer who superintended the construction, was able to get but thirty hours of work done in the first year, and one hundred and fifty-seven hours in the second year.

Nor do ingenuity and care cease when the light-house is built and the keeper installed. Most of our light-houses are on barren, desolate, and exposed points of the coast. In some of them the keepers can not communicate at all with the shore during the winter months, and in such cases supplies of all kinds for the lights and the keepers must be accumulated beforehand. In many fresh-water for the keeper and his family has to be caught in cisterns; and there is an official circular to light-keepers, telling them how to avoid the poisonous effect of the water dripping from the leads of the light-houses by putting powdered chalk into the cistern, and occasionally stirring it. In many places it has been found that cattle, attracted to the light at night, destroyed the strong-rooted grass which holds down sand dunes, and thus exposed the light-house itself to destruction; and in such cases a considerable area of land must be fenced in to exclude these beasts. On stormy nights sea-fowl are apt to dash themselves against the lantern glasses, blinded probably by the glare of the lights, and all light-keepers are specially warned in their printed instructions to be on the watch for such an accident, and extra panes of glass, fixed in frames, are always in readiness in every light-house, to substitute for those which may thus be broken.

In fact, the Light-house Board carries on and provides for an infinite number of details, many of them petty, but none unimportant. It must provide oil for the lamps, and oil butts must be ingeniously contrived so as to exclude air from their contents. It must keep a store of wicks, and of lamp scissors to trim the wicks; it must provide the most durable and economical paint for the iron of the lanterns; it has to send on supplies of food; and for the more complicated lights of the higher orders it has not only to provide expensive machinery, but must also keep on hand delicate yet simple tests by the help of which the light-keeper may be able daily to see that his lamp is set in the exact plane, and that his wicks are trimmed precisely high enough. It must provide such seemingly trifling articles as dusting and feather brushes, linen aprons, rouge powder, prepared whiting, spirits of wine, buff or chamois skins, and linen cleaning cloths, and, what will appeal to the sensibilities of most country housekeepers, the Light-house Board must keep on hand at each light-house a sufficient supply of glass chimneys for the lamps. No doubt the board possesses the invaluable secret of making chimneys last a long time, and no doubt many an excellent housekeeper who reads this would like to ask Professor Henry what kind of lamp chimneys he has found to be the most lasting and the least liable to crack.



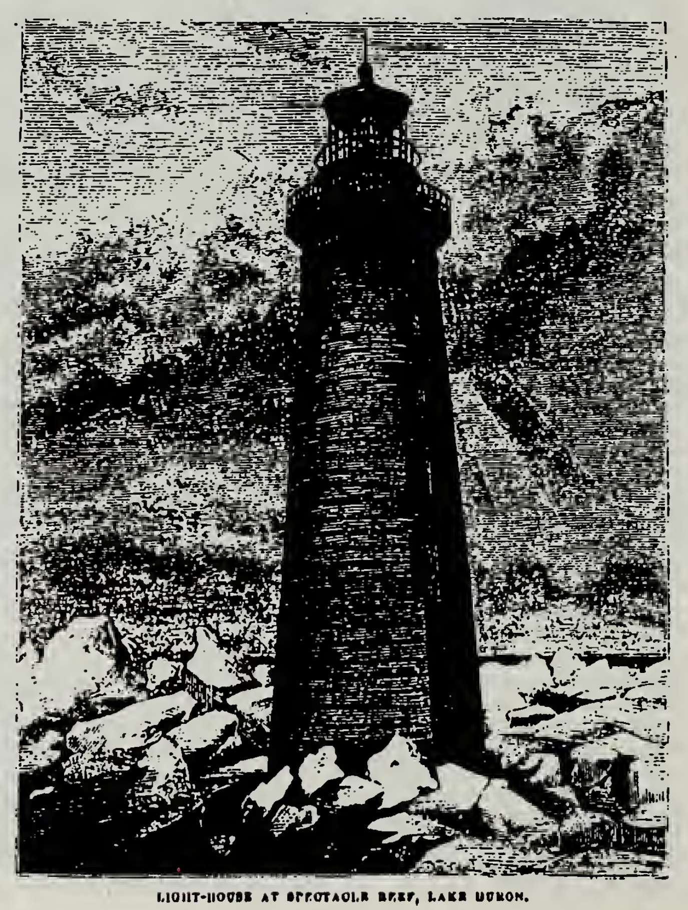
LIGHT-HOUSE, CLEVELAND, OHIO—LAKE ERIE.

There is a printed book of one hundred and fifty-two pages specially devoted to "instructions and directions to light-keepers," and in this they receive explicit commands not only for their daily duties, but for all possible or imaginable accidents and emergencies. The first article of these instructions announces the fundamental duty of the light-keeper: "The light-house and light-vessel lamps shall be lighted, and the lights exhibited for the benefit of mariners, *punctually at sunset daily*. Light-house and light-vessel lights are to be kept burning brightly, free from smoke, and at their greatest attainable heights, *during each entire night*, from sunset to sunrise;" and it is added that "the height of the flame must be frequently measured during each watch at night, by the scale graduated by inches and tenths of an inch, with which keepers are provided." Finally, "All light-house and light-vessel lights shall be extinguished punctually at sunrise, and every thing put in order for lighting in the evening by ten o'clock A.M. daily."

It would be tedious, and take more space than we have to spare, to give even a bald list of all the tools and materials required in a first-class light-house. A glance over the index of the volume of directions shows that it contains instructions for cleaning, placing, removing, and preserving the lamp chimneys; for cleaning the lamps; for keeping the lantern free from ice and snow; for preserving the whiting, rouge powder, etc.; for using two or three dozen tools; for preserving and economically using the oil, filling the lamp, using the damper; for precautions against fire; "how to trim the wicks;" and for dozens of other details of the light-keeper's daily duties.

The keeper is required to enter in a journal (daily) all events of importance occurring in and near his tower, and also to keep a table of the expenditure of oil and other stores. Besides the officer who is district light-house inspector, and who may make his examinations at any time, there are experts called "lampists," who pass from light to light, making needed repairs, and also taking care that the machinery of the light is in order, and that it is properly attended to by the keeper.

In the construction of light-houses many nice points have to be borne in mind. For instance, on the Atlantic coast it is found difficult very often to raise the towers high enough so as to let the lights be seen at a great distance. But on our Pacific coast the difficulty is often to get them low enough. The coast of California is mostly mountainous and precipitous: the fog hangs low on the mountain-sides; and if lights were placed too high, they would be obscured by the fog. Our Pacific coast, by-the-way, is far more foggy than the Atlantic side; and fog-signals are of more importance between San Francisco and the mouth of the Columbia than along the whole shore-line from Calais to St. Augustine. The proper height for a sea-coast light is about one hundred and fifty feet above the sea-level; but on the California coast it is rarely that room can be got for a light-house so low down as this. The fine light at Point Reyes stands two hundred and ninety-six feet above the sea, and that of Point Loma, at the entrance of San Diego Bay, is nearly five hundred feet above the sea. Point Reyes light can be seen at a distance of twenty-four nautical miles when the weather is clear; when it is foggy, a steam fog-whistle warns the mariner to keep off a line of coast which is as dangerous to a ship as a shark's mouth would be to a man.



LIGHT-HOUSE AT SPECTACLE REEF, LAKE HURON.

The light-houses, light-ships, buoys, beacons, fog-signals, machine-shops, and other property controlled by the Light-house Board, are worth between forty and fifty millions of dollars. The whole of this is a free gift of the American people to the world. Other nations exact light-house dues which to a great extent defray the expense of maintaining their lights, but our government has made all lights free to the mariners of all nations. The whole establishment is sustained by annual appropriations of Congress.

The present pay of light-house keepers varies according to the importance of the light and the responsibility put upon the keeper. The Congressional appropriation covers an average salary of six hundred dollars per annum. The keeper of Minot's Ledge, on the Massachusetts coast, receives $1000, while some keepers receive but $350.

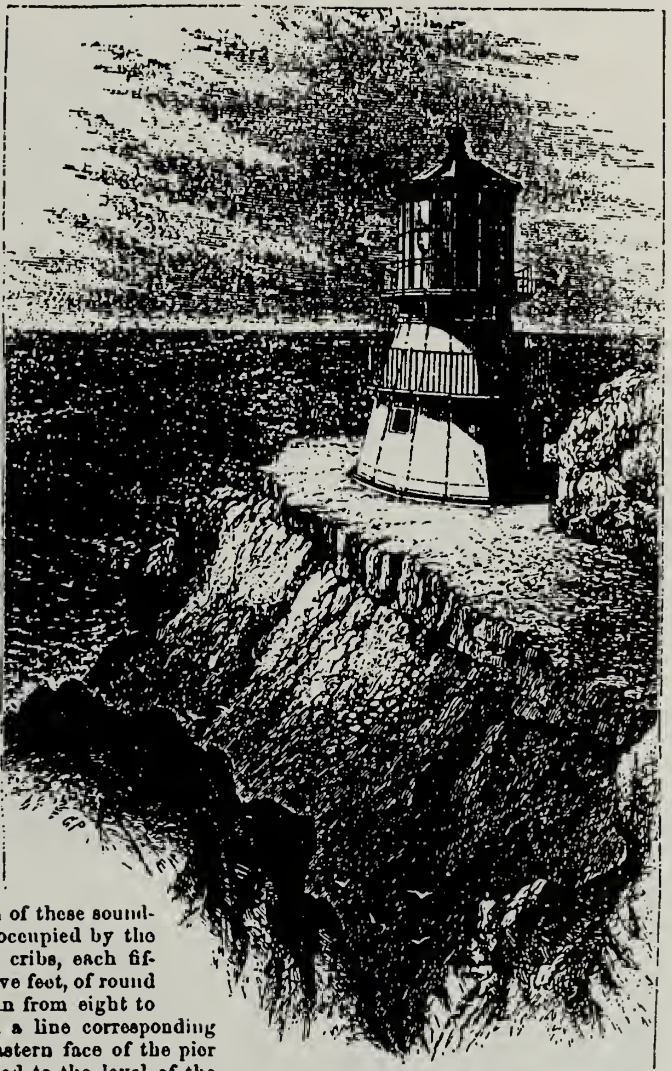
The cost of light-houses varies as much as the salaries of the keepers. Some light-houses cost ten thousand dollars; Minot's Ledge light cost a quarter of a million; and the light-house on Spectacle Reef, on the coast of Lake Huron, cost $300,000. A picture of the last-named light-house is given on page 471, and the following account of the difficulties encountered in preparing for its construction will give an idea of what natural obstacles have often to be overcome in this kind of building. The account is taken from the official report:

The site of the tower being determined, and the proper soundings and surveys made, a crib ninety-two feet square was built, having a central opening forty-eight feet square to receive the coffer-dam which was to form the pier of protection, as well as the landing-place for materials. This huge crib was floated to its place.

In order to get accurate soundings to guide in shaping the bottom of the crib, and to fix with a degree of certainty the position of these soundings and that to be occupied by the crib, four temporary cribs, each fifteen feet by twenty-five feet, of round timber, were placed in from eight to ten feet of water, in a line corresponding with the proposed eastern face of the pier of protection, and filled to the level of the water with ballast stone. These four cribs were then decked over and connected together. Upon the pier thus formed about seventy cords of ballast stone were placed, ready at the proper time to be thrown into the crib forming the pier of protection.

The lower two complete courses of the pier of protection having been fastened together by screw-bolts, forming a raft, constituting a ground-plan of the pier of protection, were then towed from the harbor where framed to the reef, and moored directly over the position to be occupied by the finished pier. Its position was marked upon the temporary pier referred to above, and soundings taken at intervals of two feet along each timber in the raft, thus obtaining accurate contours of the surface of the reef within the limits of these timbers. The raft was then towed back to the harbor, hauled out upon ways, and by means of wedges of timber the bottom was made to conform to the surface of the reef. The raft, now become the bottom of the pier of protection, was then launched, and additional courses of timber built upon it, until its draught of water was just sufficient to permit its being floated into position on the reef, at which time it was estimated that the top of the pier would be one foot out of water.

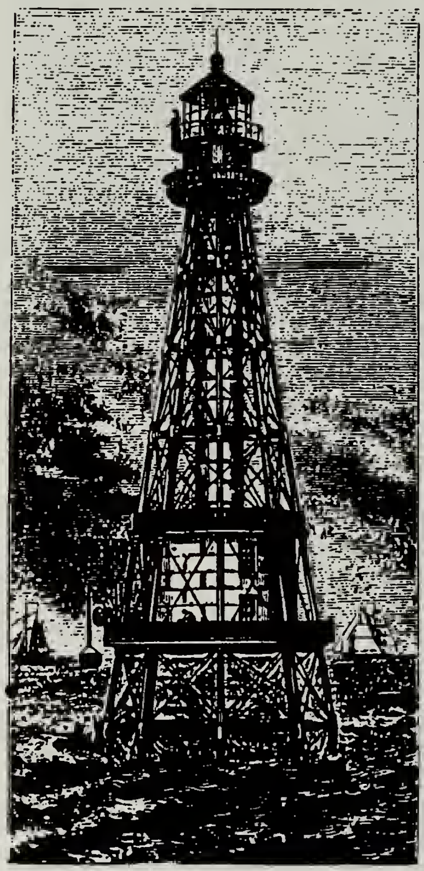
The depth of water on the reef at the points to be occupied by the four corners of the pier of protection was found to be as follows: At northeast corner, ten feet six



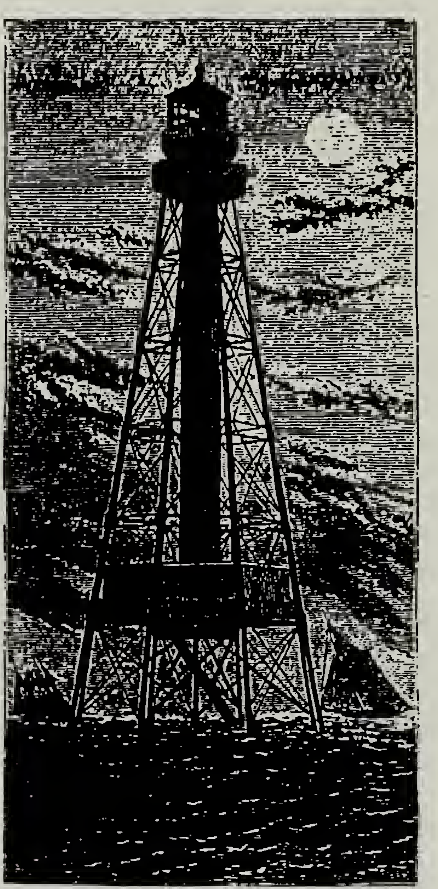
POINT REYES LIGHT-HOUSE, PACIFIC COAST.

inches; at northwest corner, thirteen feet; at southwest corner, fourteen feet six inches; and at southeast corner, nine feet six inches—the position to be occupied by the pier of protection having been so chosen that the sides would correspond to the cardinal points of the compass. Meanwhile five barges at the harbor had been loaded with ballast stone, making, together with those on the temporary pier at the reef, 290 cords (about 1800 tons) at command, with which to load the pier of protection and secure it to the reef as soon as it should be placed in position.

On the evening of the 18th of July, 1871, every thing being in readiness, and the wind, which had been blowing freshly from the northwest for three days previously, having somewhat moderated, at 8 P.M. the tugs *Champion* (screw-propeller) and *Magnet* (side-wheel) took hold of the immense crib and started to tow it to the reef, fifteen miles distant, followed by the *Warrington* (screw-propeller), having in tow the schooner *Belle*, the two having on board a working force of 140 men, the tug *Stranger* (screw-propeller), with barges *Ritchie* and *Emerald*, and the tug *Hand*, with two scows of the Light-house Establishment. The barge *Table Rock*, with fifty cords of stone on board, was left in reserve at the harbor. The construction scow, with tools, etc., on board, was towed with the crib. At 2 A.M. next morning, six hours after starting, the fleet hove to off the reef, awaiting daylight and the abatement of the wind, which had again freshened up. At 6½ A.M., it having moderated, the pier, with considerable difficulty, was placed in position, and after being secured to the temporary pier and the moorings previously set for the purpose, all hands went to work throwing the ballast stone into the compartments, and by 4 P.M. succeeded in getting into it about 200 cords, or 1200 tons. By this time the wind was blowing freshly, and the sea running so high as to make it necessary to stop work for the time, but early next morning all the reserve stone was put into the compartments.

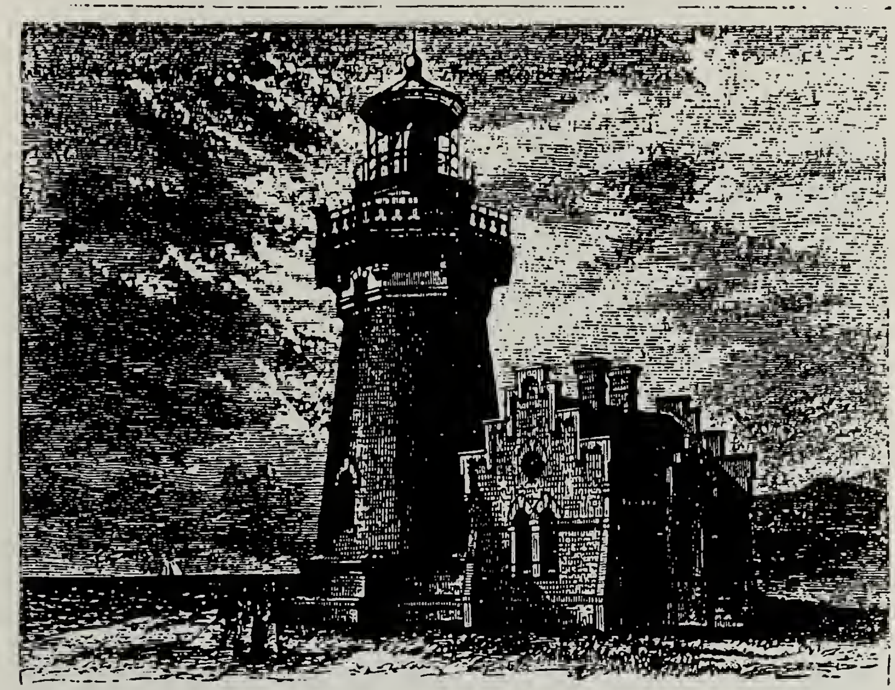


LIGHT-HOUSE AT TRINITY SHOAL, GULF OF MEXICO.



LIGHT-HOUSE AT ALLIGATOR REEF, FLORIDA.

After the pier was in position the schooner *Belle* was moored on the reef to serve as



LIGHT-HOUSE AT PIEDRAS BLANCAS, CALIFORNIA.

quarters for the working force, which proceeded to build up the pier to the required height above water (twelve feet). On the 12th of September the pier had been built up to its full height, and by the 20th of September quarters for the workmen had been completed upon it, which were at once occupied, and the *Belle* returned to the harbor.

By means of a submarine diver the bed-rock within the opening of the pier was then cleared off, and the work of constructing the coffer-dam was taken in hand. The coffer-dam itself consisted of a hollow cylinder, forty-one feet in diameter, composed of wooden staves, each four inches by six, and fifteen feet long. The cylinder was braced and trussed internally, and hooped with iron externally, so as to give it the requisite strength. It was put together at the surface of the water, and when complete was lowered into position on the bed-rock by means of iron screws.

As soon as it rested on the rock (which was quite irregular in contour), each stave was driven down so as to fit as closely as it would admit, and a diver filled all openings between its lower end and the rock with Portland cement. A loosely twisted rope of oakum was then pressed close down into the exterior angle between the coffer-dam and rock, and outside of this a larger rope made of hay. The pumping machinery having meanwhile been placed in readiness, the coffer-dam was pumped dry, and on the same day (14th October) a force of stone-cutters descended to the bottom and commenced the work of leveling off the bed-rock, and preparing it to receive the first course of masonry.

The bed-rock was found to consist of dolomitic limestone, confirming the previous examinations, highest on the western side, toward the deepest water, and sloping gradually toward the eastern. In order to make a level bed for the first course of masonry it was necessary to cut down about two feet on the highest side, involving a large amount of hard labor, rendered more difficult by the water forcing its way up through seams in the rock. But the work was finally accomplished, the bed being as carefully cut and leveled as any of the courses of masonry.

The first course of masonry was then set, completing it on the 27th of October. While setting this course much trouble was caused by the water, already referred to as forcing its way up through seams in the rock, which attacked the mortar-bed. For this reason water was let into the dam every evening, and pumped out next morning, to give the mortar time to harden during the night. This mortar was composed of equal parts of Portland cement and screened silicious sand. Specimens of it obtained the following spring, after being in place under water for seven months, were quite as hard or harder than either the bed-rock or the stone used in building the tower.

The weather having now become very

boisterous, with frequent snow-squalls, often interrupting the work, and the setting of any additional stone requiring the removal of a portion of the most important of the interior braces of the coffer-dam, it was deemed prudent to close the work for the season. This, too, would give ample time for the hardening of the mortar used in bedding the stone, and the concrete used for filling cavities in the bed-rock, as well as the space between the outside of the first course and the coffer-dam, which was solidly filled with concrete to the top of the first course. Therefore the coffer-dam was allowed to fill with water, the process being hastened by boring holes through it to admit the water, and it was secured to prevent its being lifted by the ice during the winter.

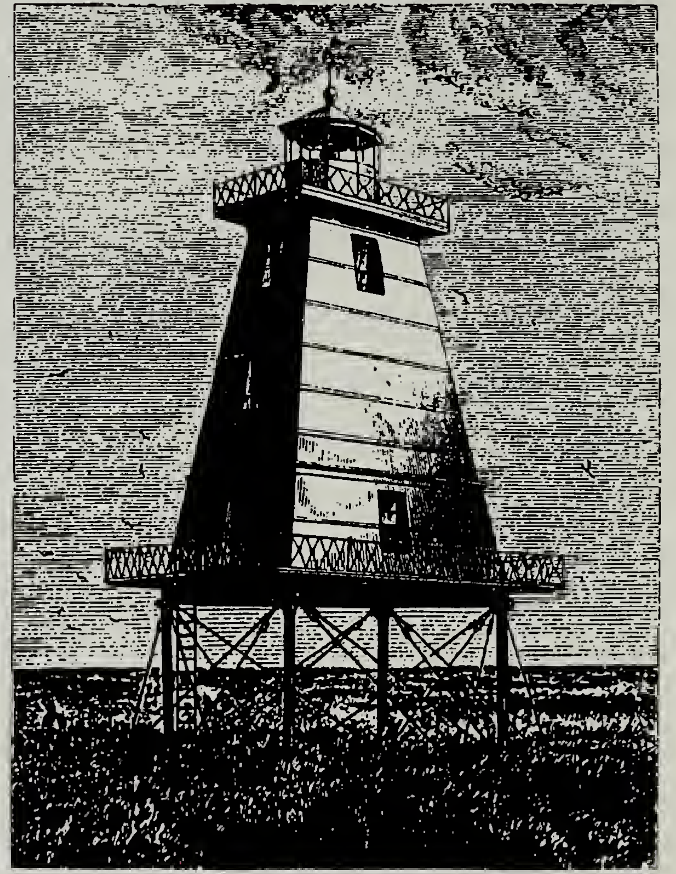
The machinery was laid up, and on the last of October all the working force, except two men, was removed. These two men were left to attend to the fourth-order light which had been established on the top of the men's quarters, and the fog-signal, consisting of a whistle attached to one of the steam-boilers. At the close of navigation they were taken off the pier by the light-house tender *Haze*.

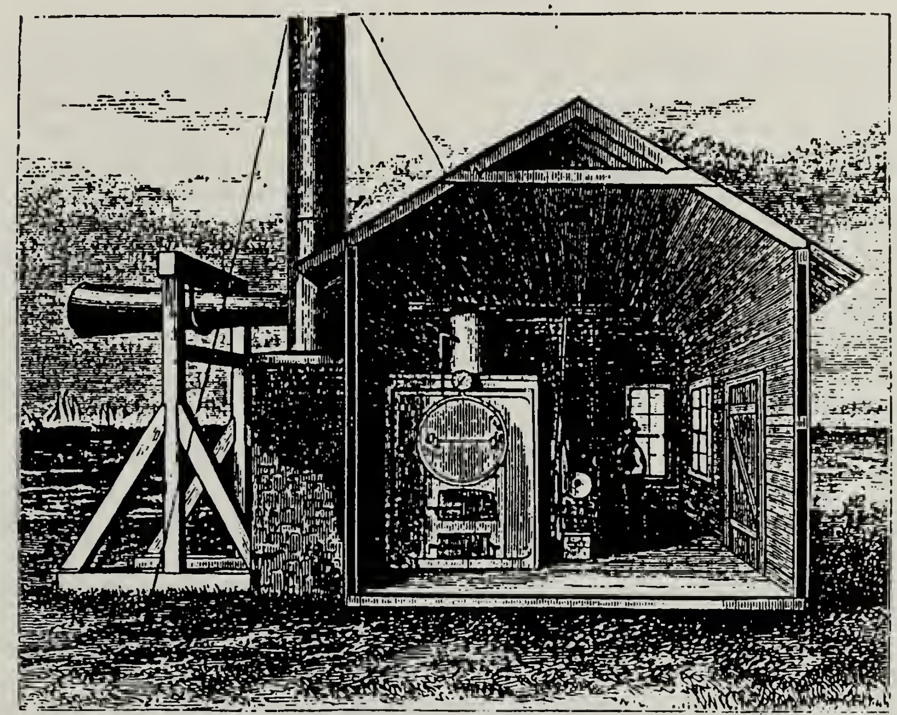
The degree of success of this novel coffer-dam may be inferred from the fact that although prepared with pumps of an aggregate capacity of five thousand gallons per minute, not more than a capacity of seven hundred gallons was used, except when emptying the coffer-dam, and then only to expedite the work. Once emptied, a small proportion of this capacity was ample to keep the coffer-dam free from water; and this at a depth of twelve feet of water, on rock, at a distance of nearly eleven miles from the nearest land. Every person connected with the work may well feel a just pride in its success. All the stone which had been delivered at the harbor, consisting of the first five courses (each course two feet thick), having been cut by this time, the work there was also closed.

The season opened a month later in 1872 than in 1871, consequently work was not resumed at the harbor until the 3d of May, and upon the reef until the 20th of the same month. On the 13th of May the ice in the coffer-dam was still a compact mass, of some feet in thickness. Masses of ice still lay on top of the pier itself. As soon as any thing could be done, the ice still remaining was cleared out of the coffer-dam, the machinery put in order, the braces removed from the interior of the coffer-dam, and then the work of setting additional courses began.

The work upon the tower was carried on at such a rate that one entire course of masonry was set, drilled, and bolted complete every three days.

The Spectacle Reef tower was founded upon a rock the highest part of which was ten feet under water. The rock on which the Minot's Ledge light-tower stands had its highest part on a level with the water at extreme low tide and in very smooth weather. The work on Minot's Ledge, how-


LIGHT-HOUSE AT CALCASIEU, GULF COAST OF LOUISIANA.



OPERATION OF A SIREN (STEAM FOG-HORN)—SECTIONAL VIEW.

over, was more difficult, because of the ocean swell which there rolls in.

The lenses used to enforce, concentrate, and direct the higher grades of lights cost various prices, up to eleven or twelve thousand dollars. The lamp of a first-order sea-coast light-house has four concentric wicks, the outer one being four inches in diameter. The oil is pumped up by clock-work or other machinery so as to feed those wicks constantly to their utmost, that they may give out as much light as possible. The Fresnel lens now comes in to save all the rays of light which have thus carefully been created, and to concentrate them and send them forth in that direction only in which they are required. Briefly described, the invention of Fresnel consists in surrounding the lamp by a series of prismatic rings of glass, each different from the others in its angles, but all cut mathematically to such angles that the rays which go above the proper plane and those which fall below shall be bent by refraction and reflection so as to become parallel with the lateral rays. Thus all the rays are saved and sent out in one sheet over the ocean. The construction of lenses for light-houses was described in an article in *Harper's Magazine* for February, 1869, and we will not, therefore, repeat it here. It is necessary, however, to say that one of the most important duties of the keeper of a light is to see daily that the light and the lens are upon the exact and proper level. A deviation of only a fraction of an inch might throw the beam of light toward the sky or down toward the base of the light-tower, and thus make it useless to the mariner.

Formerly the best sperm-oil was used in light-house lamps. Colza or rape-seed oil was next introduced in Europe, and is still used there, as it is an excellent oil. It is, however, difficult in this country to get a sufficient quantity of the best kind, and our Light-house Board now uses the best quality of lard-oil, made on purpose for the establishment. Kerosene and other mineral oils have been used in the British Provinces and in Europe to some extent, but there are certain obvious risks attending them which prevent their use with us.

There are at this time half a dozen electric lights in Europe, but their number is not increasing. They have proved extremely expensive in the maintenance, requiring the use of steam-engines for generating the electricity. It is said that this light, which is, no doubt, more powerful than any other in clear weather, does not penetrate fog so well as the oil light.

Experience has shown our Light-house Board that the best light-keepers are old sailors and soldiers, and it is its desire, we have been told, that the maimed of those who served in the war for the Union should, where they are physically and mentally competent, receive these places. It is to be hoped that civil service reform will make its way also into this department of the government service, for the petty though important place of light-keeper has too often been made a political prize, and thus the service, which requires permanence, has been injured. The politicians of the baser sort have not seldom defeated the best intentions and desires of the board, and ousted a good man to put in one "useful at the polls." A merchant might as reasonably change his book-keeper for political reasons as the government change its light-keepers for this cause. In England the light-keeper holds his office for life or good behavior. When he enters the service he is rigidly examined as to his duties, and must produce the best evidence of good character and sound health. He begins at a less important light, on a low salary, and is promoted for skill and attention to his duties. To this, it is hoped, we shall presently come.

Fog-signals, many of which are required at different points on the Atlantic and Pacific coasts, are of several kinds. Some are steam-whistles, the sound of which is made deeper or louder by being sent through a trumpet; but the most effective is probably the Siren. This ingenious machine consists of a long trumpet and a steam-boiler. The sound is produced by the rapid revolution past each other of two flat disks pierced with a great number of small holes; a jet of steam under high pressure is projected against the disks, which revolve past each other more than a thousand times a minute; as the rows of small holes in the two disks come opposite each other, the steam vehemently rushes through and makes the singular and piercing noise which a Siren gives out. One of these machines, of which a drawing is given on page 476, costs about $3500 complete, with its trumpet, boiler, etc.

Daboll's trumpet is worked by an Ericsson engine, and requires no water for steam.

Congress rightly has great confidence in the scientific skill and integrity of the Light-house Board. At the last session, besides the usual appropriation for the maintenance of the light-house system, it gave the money needed to build forty new light-houses and ten steam fog-signals. If we ever have a merchant marine of our own again, our seamen will find the stormy and rock-bound coasts of their country well lighted for them.

ADVICE.

He has told you the same old story,
 Told ever anew by wooers—
The story of pure devotion,
 Unchanging while life endures—
This passionate, palpitating,
 Persistent lover of yours.

He has called you by every title
 Which lovers delight to repeat—
A queen, a goddess, an angel,
 With changes tender and sweet—
And laid the troublesome treasure
 Men call a heart at your feet.

You ask me what you shall answer?
 Ah, child, can my counsel throw
The weight of a thought against him?
 Love never hesitates so!
Answer him No, fair doubter,
 For ever and ever No!

There lives a marvelous insect
 In the Southern meadows far,
Where the wild white ipomeas
 And the passion-flowers are,
That even in broad bright sunshine
 Gleams like a living star:

It circles, a flying jewel,
 Beautiful to behold;
It settles to rest a moment,
 A globule of molten gold;
But once in the hand imprisoned,
 Its color grows dull and cold:

You grasp at a flashing jewel
 Worthy a monarch's crown,
Glistening, darting, glancing,
 And glittering up and down,
And capture—a sharded beetle,
 Sluggish and dull and brown!

And thus, to a youth's mad fancy,
 Is the object of love's wild quest—
Reckoned above all blessings,
 Dearest and first and best,
So long as remote and elusive—
 But worthless when once possessed.

So weariness comes of having,
 Since happiness means pursuit;
And love grows dwarfish and stinted,
 And bears but a bitter fruit,
For the serpent of self forever
 Coiling about its root.

So lips which have met in kisses
 Grow chary of tender speech,
So hearts which are bound together
 Grow burdensome each to each,
Since the only things men value
 Are those which they can not reach.

So the gainer counts as nothing
 The blessing that should have been;
The conqueror turns indifferent
 From the conquest he gloried in,
Longing, like Alexander,
 For lovelier worlds to win.

Who cares for the road-side roses
 Which bloom within grasp of all,
While their inaccessible sisters—
 Less lovely and sweet and tall,
But dearer because of their distance—
 Lean over the garden wall?

Then answer him No, young maiden;
 Be pitiless and serene:
There are heart-sick wives in plenty,
 But an angel is seldom seen.
Keep to your cloud, bright goddess!
 Stay on your throne, fair queen!

APPENDIX D3.

28 December, 1886.

Sir:

The Board at the session of 21 Dec. '86, ordered that the following system of lightning conductors be adopted.

1. For all structures requiring lightning conductors, and which are not at present provided with them, there shall be one lightning conductor to consist of a copper ribbon over one and a half inches wide by an eighth of an inch thick; it will be fastened to the building with copper nails and run from the ground to the chimney or other highest point of the building and be there soldered to a copper rod rising two feet above the highest point and terminating in three (four?) nickle plated points. The different portions of the copper ribbon must be firmly riveted and soldered together.

At a place conveniently near the lower end of the lightning conductor a pit about three feet square is to be dug to moist earth and a layer of coke one foot thick laid on the bottom and well rammed; a cast iron pipe six inches in diameter is to be placed against one face of the pit, its lower end resting on the coke and its upper end projecting about one foot above the surface of theground; this pit is then to be filled with earth, and the pipe, to near its top with well rammed coke.

A lump of coke or retort carbon, to which is a copper band one and half inches wide by one eighth of an inch thick is rigidly attached by soldering or pouring melted lead over it, is put in the pipe and a final layer of coke pressed firmly around it. The copper band projects from the top of the pipe and to this band the lower end of the lightning conductor is to be firmly riveted and soldered. When the pit for the coke is deep, a second layer of coke should be placed near the surface, laid in a trench radiating away from the house, to assist the rain-wet ground in leading off the charge.

When possible, the pit should be so located that the coke will be kept continually moist, either by the sea, or by drainage from the surface.

2. At Light-Stations where lightning conductors are now in position; the ground connections should be altered to that described above, all insulators should be removed and the conductors should be examined to see that there is good metallic connection from the ground to the tips.

You are requested to take the proper steps to carry these orders to effect.

Very respectfully
W. B. Heap
Major of Engineers, U.S.A.
Engineer Secretary

Lieut. John Millis, U.S.A.
Engineer Bd. L.H. District,
New York, NY

Field Records of the Light-House Board and Bureau
Records of the Third Light-House District (New York), 1854-1939
National Archives RG-26
Letters from the Light-House Board to Engineer, Vol. No.45
April 29, 1886 to December 30, 1886, p. 126

APPENDIX E.

Finishes Study

FINISHES STUDY

Objective

The prime objective of this historic structure report was data collection as an aid to decision making. Paint research of architectural elements can provide a large quantity of data rather quickly, with little physic al effort, and the process is relatively non-destructive to the architectural fabric. For these reasons, the finishes were studied to offer direction to the decision-makers. The analysis at this stage was designed to provide an overview, and thus, is not refined.

Numerous paint samples were extracted, over three hundred in total, from the Lighthouse and Keeper's Dwelling. They were extracted prior to any work on the structure so that historic elements could be identified and taken into account in any proposed restoration and/or adaptive use program.

Color schemes for specific periods have not been worked out at this point as the time constraints and the parameters of this paint research exercise negated a thorough comparative analysis of all the finishes of the structures. The data collected, however, will provide the data base for future, more refined research after a restoration period has been selected.

Included in this report are lists of paint samples taken and a representative sampling of photomicrographs of paint samples taken from architectural elements in the lighthouse and a select group from each room in the keeper's dwelling, along with the exterior features of both structures.

Methodology

Sample Extraction

The sample specimens were collected by Carole L. Perrault from November 1982 through April 1983. The samples were extracted with an X-acto type knife and placed in coin envelopes, one per sample. The envelopes were labeled as to exact location of removal. Numerous samples were taken so that architectural elements might be relatively dated by their chromochronologies. (The recording of the history of layers in terms of its color designation is known as the chromochronology.)

Sample Preparation

The sample envelopes were returned to the laboratory. Each sample was given an identification number based upon the Integrated Research Organizational System employed in the Preservation Center. Each sample was mounted in a wax-filled petri dish. (The wax only secures the specimen for analysis and does not completely embed the sample.) The petri dish was labeled with the sample number.

Identification of Layers

Following mounting, the samples were studied under a binocular zoom microscope, with capability of 105X magnification. The paint layer sequence was recorded chronologically, starting with the substrate (whether it be wood or plaster, etc.). Varnish, dirt, wallpaper type layers were noted, as well.

Chemical Analysis of Finishes

Minimal chemical analysis occurred at this stage. Periodically samples were tested for the presence of lead. Upon determination of the period of restoration, further chemical analysis of pigments and mediums may be required.

Photomicroscopy

Each sample was photographed under the microscope and a visual record of its stratigraphy recorded on a color transparency. Only a select group of slides-were made into print to illustrate this report.

Comparative Analysis

For the purpose of applying a relative date to architectural elements, a comparative analysis of the chromochronologies was conducted rather quickly. A more detailed comparative study will be required when a determination of a period of restoration has been made.

Color Matching

Color matching was performed only to provide a match to the early colors employed on the lighthouse–the yellow cream shades. The color comparison was conducted microscopically in the laboratory employing fiber optic lights and a blue filter. The controlled environment eliminates a large percentage of the color distortion inevitable with other, lighting systems. The layers were compared to the Munsell Color Notation System. (The Munsell system enables color to be recorded by a numerical notation, rather than color name.)

Lists of Finish Samples

Lighthouse Paint Samples

The following is a list of the paint samples extracted from the lighthouse surfaces in numerical order. Lists of the samples taken from each individual architectural element can be found in the description sections for those elements. The term “tower” is used to refer to the area below the individual, upper rooms.

FIIS 13 P001	Watch Room exterior, brick
FIIS 13 P002	Lantern interior, sill at bottom of sash
FIIS 13 P003	Tower, central stairway column
FIIS 13 P004	Tower, interior wall
FIIS 13 P005	Watch Room exterior, upper several courses of brick
FIIS 13 P006	Entry wall interior, west jamb of arch
FIIS 13 P007	Watch Room doorway, exterior iron door trim
FIIS 13 P008	Tower, exterior brick
FIIS 13 P009	Watch Room, exterior balcony floor
FIIS 13 P010	Tower, stairway
FIIS 13 P011	Tower, stairway
FIIS 13 P012	Tower, central stairway column
FIIS 13 P013	Tower, narrower conduit following central column
FIIS 13 P014	Tower, wider conduit following central column
FIIS 13 P015	6th Landing Room, column
FIIS 13 P016	Tower, central stairway column, top section, before rooms
FIIS 13 P017	Tower, interior wall
FIIS 13 P018	Tower, interior north/south wall at 6th Landing, stairway side
FIIS 13 P019	Window #2, wide storm window jamb
FIIS 13 P020	Window #2, storm window sash
FIIS 13 P021	Window #2, interior window jamb
FIIS 13 P022	Window #5, interior window sash
FIIS 13 P023	Window #5, interior window trim
FIIS 13 P024	6th Landing, iron T-bar supporting brick interior
FIIS 13 P025	Window #6, interior window sash
FIIS 13 P026	Window #6, interior window sill
FIIS 13 P027	Window #6, interior window trim
FIIS 13 P028	6th Landing Room, north/south interior wall
FIIS 13 P029	6th Landing Room, doorway, side of door facing stairway
FIIS 13 P030	6th Landing Room, doorway, interior side of door
FIIS 13 P031	6th Landing Room, doorway trim
FIIS 13 P032	6th Landing Room, against the wall at top riser of stairway
FIIS 13 P034	6th Landing Room, wall area where brick is cut away to accommodate the stairway
FIIS 13 P035	6th Landing Room, doorway jamb, south side
FIIS 13 P036	Service Room, copper floor covering
FIIS 13 P037	Service Room, trapdoor, underside
FII S 13 P038	Service Room, column
FIIS 13 P039	Service Room, metal framing for stairway
FIIS 13 P040	Service Room, wooden floor, joists below from underside

FIIS 13 P041	Service Room, wooden floor
FIIS 13 P042	Watch Room, wood at top of stairway from Service Room
FIIS 13 P043	Watch Room, wall, baseboards, three courses of brick
FIIS 13 P044	Watch Room, jamb to west of doorway, black
FIIS 13 P045	Watch Room, stairway to lantern
FIIS 13 P046	Watch Room, wood above doorway
FIIS 13 P047	Watch Room, cast-iron grate
FIIS 13 P048	Watch Room, doorway trim
FIIS 13 P049	Watch Room, wall
FIIS 13 P050	Watch Room, 1930's pedestal
FIIS 13 P051	Watch Room, floor
FIIS 13 P052	Watch Room, floor, wood plate
FIIS 13 P053	Lantern, interior sill at bottom of sash
FIIS 13 P054	Lantern, lower end of vertical post at floor level
FIIS 13 P055	Lantern sash, plus upper horizontal sash bar
FIIS 13 P056	Lantern, original floor
FIIS 13 P057	Lantern, 1930's floor
FIIS 13 P058	Lantern, 1930's floor, from Watch Room
FIIS 13 P059	Lantern, original floor, from Watch Room
FIIS 13 P060	Entry door, interior side
FIIS 13 P061	Tower exterior, base
FIIS 13 P062	Entry doorway, fanlight
FIIS 13 P063	Entry doorway, jamb side where pintles are located
FIIS 13 P064	Entry doorway, exterior jamb
FIIS 13 P065	Entry doorway, exterior jamb
FIIS 13 P066	Entry doorway, exterior of door
FIIS 13 P067	Watch Room exterior, wall adjacent to ladder
FIIS 13 P068	Watch Room exterior, wall, from lower balcony
FIIS 13 P069	Lantern, pedestal floor, from lantern side
FIIS 13 P070	Lantern, floor, from Watch Room
FIIS 13 P071	Lower balcony, railing
FIIS 13 P072	Lantern, ceiling, black plate iron
FIIS 13 P073	Lantern, copper ceiling
FIIS 13 P074	Roof structure, tie rod

Keeper's Dwelling Paint Samples

A numerical listing has not been included here due to the large number of samples. Lists of the samples taken can be found in the description sections for the dwelling's exterior and interior elements.

APPENDIX F.

Mortar/Plaster/Stucco Analysis

MORTAR/PLASTER/STUCCO ANALYSIS

Objective

Analysis of mortar and plaster samples removed from the Fire Island lighthouse and keeper's dwelling was performed to help date the architectural fabric, and to derive a compatible mix for restoration purposes. Only a small sampling was undertaken, primarily of mortar, since the dwelling is still occupied and only a minimal amount of destructive investigation was permitted. Additional sampling will be required when the structure is vacated and more extensive probing is possible.

Methodology

The mortar/plaster test merely breaks down the sample into its constituent parts so that the original mix for that sample can be reconstructed. As is often the case in most structures, the mortar mix varies from period to period, even to the extent that different sands or coloring agents may have been employed. By breaking down the sample into its component parts, the differences between samples and thus periods of work can be made more apparent, providing more conclusive evidence than reliance solely on the dried samples in situ.

Sample Extraction

Eighteen samples of mortar and plaster were removed by Carole L. Perrault from November 1982 through April 1983. The samples were extracted by employing a small cold chisel and hammer and placed in plastic bags. The samples were identified by artifact type (mortar or plaster), structure, location and date of removal.

Sample Preparation

Each sample was first recorded as to relative hardness and distinguishing characteristics - e.g. type, uniformity and size of aggregates, color, and texture.

The sample was then ground up using a mortar and pestle, into a fine, granulated consistency without lumps. Caution was exerted not to grind the sample into dust, which would damage or destroy the aggregate.

A 500-ml. beaker was weighed and recorded. Twenty grams of mortar were then added to the beaker. The beaker was marked with the sample number so that the beaker would be used consistently throughout the analysis.

Sample Testing

The sample after weighing was poured into a 1,000-ml. Erlemeyer flask. A magnetic stirring bar was added and the flask was connected to the Mortar Analysis Apparatus (MAA) and placed onto the automatic magnetic stirrer. A 5:1 solution of water and hydrochloric acid was added to the MAA in the amount of 150 mil. The proper stop cocks were closed and then activated, releasing the HCl solution into the flask containing the sample. A closed system was created between the sample flask and a 4,000-ml. flask full of distilled water that was connected by glass tubing to an empty graduated cylinder. The magnetic stirrer was turned to "high" to agitate the solution.

As the solution reacted with the lime in the sample, carbon dioxide (CO_2) was released. This action forced water from the 4,000-ml. flask into a graduated cylinder. When the water stopped running into the cylinder, the measurements of liters of water displaced was recorded. This measurement constitutes the amount of $C0_2$ created by the chemical reaction. The temperature and barometric pressure was recorded.

Filtering Process

The solution was then filtered to permit the collection, weighing, and examination of the solid particles suspended in the HCl solution. The filtering process entailed the following steps.

- Filter paper was placed into a funnel.
- 20 ml. of the solution was poured into the funnel and drained into a test tube.
- The filtrate color was examined and recorded as being either amber or greenish-yellow.
- The solution from the flask was poured into the 500-ml. beaker. The flask was rinsed with water to ensure that all the particles would be transferred to the beaker.
- The solution was then poured into the funnel, with care taken to retain the solid particles at the bottom of the beaker. The particles were not to be poured into the funnel.
- When only the solid particles remained, the beaker was placed under the heat lamp to dry.
- The filter paper containing the fines (particles that were suspended in the solution) was removed and placed under a heat lamp to dry.

Recording

After drying, the following actions were performed.

- The beaker and its contents of sand were weighed.
- The sand was then poured into a 20-ml. graduated cylinder, and the amount of sand (in cubic centimeters) was recorded.
- The graduated cylinder was weighed with sand.
- The graduated cylinder was weighed without sand.
- The dried filter paper with fines was color-matched to the Munsell Soil Chart.
- The dried filter paper was weighed with fines.
- The fines were scraped off the filter paper, which was then weighed again.

Computation

The computation of the analysis data was accomplished by a computer program.

Comparative Analysis

Following the computation stage, the population of samples was compared. The comparative data included the ratios of the sample constituents analyzed in terms of parts/volume, the aggregates, and the fines.

Lists of Mortar Samples

The following are numerical lists of the mortar/plaster/stucco samples extracted from both the lighthouse and the keeper's dwelling.

Lighthouse Mortar Samples

FIIS 13 M001	Tower exterior, 1912 protective coating (concrete)
FIIS 13 M002	Top of stairway at entrance to 6th Landing Room, juncture of iron beam and central column
FIIS 13 M003	Tower exterior, brick mortar that has fallen off structure
FIIS 13 M004	Interior at base level

Keeper's Dwelling Mortar Samples

FIIS 14 M001	South elevation, east window well, pointing mortar for brick
FIIS 14 M002	North elevation, west end, early mortar (second mortar?)
FIIS 14 M003	West elevation, repainting mortar
FIIS 14 M004	South elevation, east window well, original pointing mortar (?), bedding mortar
FIIS 14 M005	South elevation, west center window, original mortar (?) from light well
FIIS 14 M006	Attic, south gable mortar
FIIS 14 M007	Attic, brick wall (interior) two walls
FIIS 14 M008	Attic, original mortar, chimneys (from debris around west chimney)
FIIS 14 M009	South elevation, pointing mortar
FIIS 14 M010	Cellar, rear north wall, center section
FIIS 14 M011	Cellar, south wall, center section
FIIS 14 M012	Attic, stone ledge, west-side mortar
FIIS 14 M013	Northwest bedroom, ceiling on north slope, area of deterioration
FIIS 14 M014	Attic over north room, ceiling plaster for the north room

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